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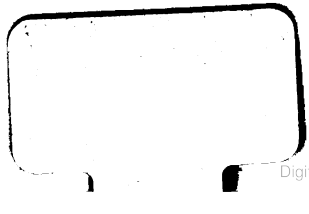

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BULLETIN NO. 17.

U. S. DEPARTMENT OF AGRICULTURE.

DIVISION OF FORESTRY.

CHECK LIST

OF THE

FOREST TREES OF THE UNITED STATES,

THEIR NAMES AND RANGES.

BY

GEORGE B. SUDWORTH,
Dendrologist of the Division of Forestry.

Issued November 5, 1898.

PREPARED UNDER THE DIRECTION OF

B. E. FERNOW,
Chief of the Division of Forestry.

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LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
DIVISION OF FORESTRY,
Washington, D. C., March 7, 1898.

SIR: I have the honor to transmit herewith for publication a Check List of the Forest Trees of the United States, prepared by Mr. George B. Sudworth, Dendrologist of the Division.

It represents in the main a condensed reproduction of Bulletin No. 14, Nomenclature of the Arborescent Flora of the United States, by the same author, with notes on the distribution of trees added for better identification.

This shorter list, it is believed, will be helpful in bringing about a more uniform and stable use of names by lumbermen, nurserymen, and others interested in forest trees.

Respectfully,

B. E. FERNOW,
Chief of Division.

Hon. JAMES WILSON,
Secretary of Agriculture.

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INTRODUCTION.

The first necessity for any forestry work is a knowledge of the trees which the forester is apt to meet in the forest, and again the first knowledge before he can think or talk of trees is that of their names.

While most of our forest trees are named both by botanists and laymen, a great number of entirely different kinds, or species, have received the same name, and also the same species has received a great number of names by which it is called in different parts of its range of occurrence. This confusion of names has led not only to many annoying inconveniences and misunderstandings, but often to fatal mistakes, as when a nurseryman fills an order with an entirely different kind of tree than was intended by the customer, or when a lumberman supplies an architect with an unsuitable material because their ideas as to what was ordered are at variance. Hence, the Division of Forestry has considered it a first duty to arrive at a uniform and stable nomenclature, both of scientific and vernacular names, by a revision of the existing names, or synonymy, in the hope that, while neither uniformity nor stability can be brought about by the mere publication of a list of names, such publication, carefully considered, might at least pave the way for such a desired end.

The botanical names have been revised according to certain laws now adopted by many botanists. The revision has been made by the competent Dendrologist of the Division, Mr. George B. Sudworth, and has been printed with a full synonymy and explanations in Bulletin No. 14 of this Division, Nomenclature of the Arborescent Flora of the United States. This bulky publication was, however, printed only in limited numbers, thereby preventing its widespread use. Since for practical uses it was not necessary to state the entire botanical synonymy, and in order to make the work more accessible, the present check list, being in part an abbreviated and amended reproduction of Bulletin No. 14, has been prepared.

For better identification, and in order to increase the value of the list, the geographical range of the species has been added in a few brief words.

The list of names comprises an enumeration of all the trees indigenous to the United States, 495 in number, the designation of "tree" being applied to all woody plants which produce naturally in their native habitat one main, erect stem bearing a definite crown, no matter what size they attain.

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A few thoroughly naturalized trees are also noted, and natural or artificial varieties and hybrids have been fully cited.

Underneath the name adopted as correct according to the laws of nomenclature referred to, whenever a change has been made from the name usually found in current text-books, the text-book name is also given, in different type.

The selection of a vernacular name from the multitude of those in use is much more difficult, especially since the same name is often applied to many totally different trees. Thus, we have 12 Ironwoods, 16 Junipers, 6 Yellow Pines, 8 Balsams, etc., each referring to different species and often to different genera. There are also many species which have no vernacular name, not being recognized by the layman. There is no law upon the basis of which a selection could be made. The selection, therefore, had to be based on a few common-sense rules as a guide and with the principle of conservatism, the only rational one, in the foreground. A large number of correspondents were asked to submit lists of names in common use in various localities. Upon the basis of these lists the name used in the greatest number of localities has been given the preference unless it was also applied to some other tree, when, as an interference had to be avoided, either another name most commonly used or a name most descriptive and pertinent was selected. When possible, and where no vernacular names existed, a translation of the botanical name was taken, keeping, however, in mind the "name quality" of the combination, that is, a combination into the use of which as a name it would be natural to fall.

In some cases, where confusion or undesirable inconsistency was caused by one name serving different genera, an attempt at segregation without too much violence to well-established usage has been made, as, for instance, in the case of Cedar. This name is used indiscriminately for Juniperus, Thuja, Chamæcyparis, and Libocedrus. We have with consistency adopted the names Juniper for the first, Arborvitæ for the second, and Cedar for the last two, well aware that it may be difficult to overcome the objection of the logger's practice, at least to the name Arborvitæ.

To enable ready reference and pave the way for general adoption of these names, not only a complete index to all the common names in the list, but a full synonymy grouped by States is added, so that the layman or botanist can readily determine what plant probably is meant by the native.

Changes in practice can only come gradually and as the desirability for change appears; then what is sensible and adaptable will be adopted and what lacks in adaptability will fail of acceptance. This list, therefore, is to be considered only as a first step to improvement and will serve as basis for further work of this Division.

B. E. Fernow.

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NOTE ON RANGE OF SPECIES.

The first attempt in recent years to enumerate all of the North American trees (north of the Mexican boundary), with a description of their range and habitat, was made by Prof. C. S. Sargent, and the catalogue was published in a bulky volume (IX) of the Tenth Census (1884). The rapid increase of knowledge of American trees since then, however, has made many additions necessary, both as to newly discovered species and as to a better understanding of the range of many of those new or little known and also of the well-known species. The elaborate Silva of North America, which Professor Sargent has now nearly completed as a sequel and amplification, with botanical features, etc., of the Tenth Census catalogue, will be the most complete work issued, but from its high price it must unfortunately remain inaccessible to many.

Aside from these two works our best information concerning the number of species and range of North American trees is to be found chiefly in such regional works on botany as Gray's Manual of Botany of the Northern States, Synoptical Flora of North America (unfinished), Chapman's Flora of the Southern States, Coulter's Manual of Rocky Mountain Botany and Botany of Western Texas, and the Botany of California, by Sereno Watson and other collaborators; also, recently, the Illustrated Flora of the United States and Canada, by Britton and Brown. Other sources of information are found in the modest and often little known State and county catalogues of plants issued by local botanists, together with various articles scattered through American and foreign scientific journals and proceedings of scientific societies.

Moreover, the army of professional and amateur botanists engaged in botanical research are yearly bringing to light new facts, which are constantly enlarging our understanding of the geographical distribution of trees and other plants. But our knowledge of the range of tree species alone, especially since so vast a territory, with nearly 500 different species, has to be compassed, must long remain a variable quantity; and the sum total of facts concerning the geographical range of any of our trees must necessarily be an expression of the united efforts of all working botanists; for the unaided diligence of one man's lifetime could never carry his search and study into all of nature's hiding places for even trees alone. The geographical range notes presented in this volume are, therefore, drawn from all the reliable botanical publications available, supplemented by new facts personally gathered in recent field work.

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In outlining the range of each species care has been taken, whenever reliable information was available, to indicate as exactly as possible points of limitation by the mention of counties, water courses, mountain systems, etc., and especially has this been aimed at in the case of new, rare, or little-known species. Wherever the range appears in more general terms specific information has not been at hand with which to give more definite limits. In the case of very common, widely, and continuously distributed species, however, the range often appears in somewhat general terms, for the reason that the ready detection of the species within the general lines renders more detailed delineation unnecessary.

A lack of space has excluded from the present catalogue any but occasional statements of the manner of occurrence of each species, that is, whether found in forests of pure growth, as in the case of Beech, Sugar Maple, White Oak, White Pine, etc., or as single individuals or scattered groups in a mixed growth, as is the case with the magnolias, basswoods, ashes, etc. Related and alike interesting facts which have been omitted are the special characters of soil, moisture, and altitude appearing to limit the natural occurrence of individuals to certain sites within a species' broader range; as, for example, the exclusive occupancy of low, mucky ground in the Northeast by the Tamarack, while the adjoining stiffer soils may bear Black Ash, with Red Maple and Yellow Birch, and the still drier contiguous upland soils may bear Red Oak, White Oak, Sugar Maple, etc.

Again, many trees are found to be more or less continuously distributed throughout their range, so that they are likely to be met with at frequent intervals. Thus, in traversing the territorial range of the familiar White Oak, individuals may be found in nearly every county and township, while less common species will be met with only in more widely separated stations, in some cases occurring as apparently accidental individuals. Peculiar, but usually accountable, phenomena are also seen in tree distribution where extensive areas of forest-forming species are very widely disconnected. A familiar example of this is the distribution of *Pinus palustris* in the Gulf region, where the species suddenly fades out east of the Mississippi River, but reappears again and in commercial quantities about 100 miles westward, in eastern Texas. Other less marked examples might be cited.

It is, therefore, to be understood by the layman that within the ranges, as stated in general terms, the species may be absent in many localities, and personal observation must aid the student to properly interpret the general range.

ADVENTIVE TREES.

In enumerating the indigenous trees of North America, it seems proper from time to time to include also certain exotic species which show the power of existing and spreading independently and without cultivation. Occurrence under such conditions may be taken as fairly indicative of

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naturalization. Such trees as the poplars, willows, Ailanthus, etc., having been more or less extensively cultivated, have escaped and become widely and thoroughly naturalized. Still other exotics, such as the Paulownia, Paper Mulberry, Tallow-tree, etc., of less extensive adaptability to varying climatic conditions, have become naturalized in certain restricted regions. There are also many indigenous trees, such as locusts and catalpas, which, through wide cultivation, have largely increased the area of their distribution and become naturalized outside of their original range.

No systematic census of the actual range of such naturalized species in North America has been attempted in the present catalogue, the statements of their presence being often based upon more or less incomplete observations, but in all cases sufficient to warrant their introduction as associates of native species. Several cultivated exotic species, not included in the present catalogue, show a tendency to become naturalized. But the existence of such species seems for the most part to be confined to old and neglected grounds where, to a limited extent, the trees have become self-propagated, though hardly capable of advancing and holding their own against the vicissitudes of more exposed localities and other contestants for the soil. It is thought best, therefore, to exclude such trees till further observation proves them to be naturalized.

GEORGE B. SUDWORTH.

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CHECK LIST OF FOREST TREES OF THE UNITED STATES.

GYMNOSPERMÆ.

Family PINACEÆ.

PINUS Linn.

Pinus strobus Linn. **White Pine.**

RANGE.—From Newfoundland (White Bay region) and along the northern shores of St. Lawrence Gulf to northern Ontario (near Abittibi and Nipigon lakes) southern Manitoba (near southern end of Lake Winnipeg); southward through northern and eastern Minnesota, northeastern (Mitchell County) and eastern border of Iowa (to Scott County), northern (counties) Illinois, southern shores of Lake Michigan, southern Michigan (north of Allegan, Eaton, and St. Clair counties), northeastern and eastern (border counties) Ohio, and along the Allegheny Mountains to northern Georgia (Tallulah Falls).

NAMES IN USE.—White Pine (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Va., W. Va., N. C., Ga., Ind., Ill., Wis., Mich., Minn., Ohio, Ont., Nebr.); Weymouth Pine (Mass., S. C.); Soft Pine (Pa.); Northern Pine (S. C.); Spruce Pine (Tenn.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Pinus strobus brevifolia Loud.
Pinus strobus umbraculifera Knight.
Pinus strobus minima Beissn.
Pinus strobus fastigiata (Koch) Beissn.
Pinus strobus viridis Carr.
Pinus strobus gracilifolia Sudw.
Pinus strobus nivea (Knight) Carr.
Pinus strobus aurea Carr.
Pinus strobus variegata Carr.
Pinus strobus zebrina Beissn.
Pinus strobus prostrata Hort. Kew.
Pinus strobus unifolia[1] nom. nov.

Pinus monticola Dougl. **Silver Pine.**

RANGE.—From Vancouver Island and southern British Columbia (coast and gold ranges) through northern Idaho (Cœur d'Alene and Bitter Root mountains) to northern Montana (Flathead River) and southward through Washington and Oregon (Cascade Mountains) to California (on Sierra Nevada Mountains to Calaveras County).

[1] *Pinus strobus unifolia* nom. nov. = *Pinus strobus forma nova monophylla* Tubeuf, in Forstl.-naturw. Zeitschr., VII., 34, (t.) 35, 1898, not *P. monophylla* Torr. & Frem. 1845. A form recently detected in Germany and characterized by Dr. Tubeuf as having the needles more or less cohering throughout their length and forming a single needle.

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NAMES IN USE.—White Pine (Cal., Nev., Oreg.); Finger-cone Pine, (Cal.); Mountain Pine (Cal.); Soft Pine (Cal.); Little Sugar Pine (Cal.); Mountain Weymouth Pine; Western White Pine.

Pinus lambertiana Dougl. **Sugar Pine.**

RANGE.—Coast region from Oregon (head of McKinzie and Rogue rivers) to California (Sierra Nevada Mountains and coast ranges to Santa Lucia Mountains; San Bernardino and Cuyamaca mountains).

NAMES IN USE.—Sugar Pine (Cal., Oreg.); Big Pine; Shade Pine (Cal.); Great Sugar Pine; Little Sugar Pine; Gigantic Pine (Cal. lit.); Purple-coned Sugar Pine.

Pinus flexilis James. **Limber Pine.**

RANGE.—Rocky Mountain region from Montana to western Texas (Guadalupe and Limpia mountains) and New Mexico; in mountains of northern Arizona, Utah, Nevada, and California (Inyo Mountains and Mount Sillman).

NAMES IN USE.—White Pine (Cal., Nev., Utah, Colo., N. Mex.); Pine (Utah, Mont.); Bull Pine (Colo.); Rocky Mountain White Pine (Cal.); Rocky Mountain Pine; Limber-twig Pine (Cal. lit.); Western White Pine (Cal. lit.); Arizona Flexilis Pine.

Pinus albicaulis Engelm. **White-bark Pine.**

RANGE.—From British Columbia (coast ranges and Lltasyouco River) southward and through Washington and Oregon (on Blue Mountains); eastward through northern Washington to northern Montana (eastern base Rocky Mountains); California (Sierra Nevada to San Bernardino mountains; Scotts Mountain and Mount Shasta).

NAMES IN USE.—White-stem Pine (Cal., Mont.); Scrub Pine (Mont.); Pitch Pine (Mont.); White-bark (Oreg.); White-bark Pine (Cal.); Creeping Pine (Cal. lit.); Alpine White-bark Pine (Cal. lit.).

Pinus strobiformis Engelm. **Mexican White Pine.**

RANGE.—Southwestern New Mexico (mountains) to Arizona (Santa Rita and Santa Catalina mountains); mountains of Mexico and Guatemala.

NAMES IN USE.—Ayacahuite Pine; White Pine (Ariz.); Mexican White Pine; Arizona White Pine.

Pinus quadrifolia Parl. **Parry Piñon.**

PINUS PARRYANA Engelm.

RANGE.—Southern California (San Diego County) and southward into Lower California.

NAMES IN USE.—Nut Pine (Cal.); Parry's Pine (Cal.); Parry's Nut Pine (Cal.); Parry Nut Pine (Cal. lit.); Piñon (Cal.); Mexican Piñon (Cal. lit.).

Pinus cembroides Zucc. **Mexican Piñon.**

RANGE.—Arizona (Santa Catalina Mountains) and northern Mexico.

NAMES IN USE.—Nut Pine (Ariz., N. Mex.); Piñon (Mex.); Stone-seed Mexican Piñon (lit.); Mexican Cembra-like Pine (lit.).

Pinus edulis Engelm. **Piñon.**

RANGE.—From Colorado (eastern base Pikes Peak) through New Mexico and to western Texas (mountains).

NAMES IN USE.—Piñon (Tex., Colo.); Nut Pine (Tex., Colo.); Piñon Pine (Colo.); New Mexican Piñon (lit.).

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Pinus monophylla Torr. & Frem. **Single-leaf Piñon.**

RANGE.—From Utah (near Utah Lake) to California (eastern foothills Sierra Nevada Mountains) and southward into eastern Arizona (San Francisco Mountains).

NAMES IN USE.—Piñon (Cal., Ariz., Nev., Utah); Nut Pine (Cal., Ariz., Nev., Utah); Gray Pine (Nev.); Nevada Nut Pine (Cal.); Single-leaf (Cal. lit.); Fremont's Nut Pine (Cal. lit.).

Pinus balfouriana Murr. **Foxtail Pine.**

RANGE.—California (Scotts Mountain in Siskiyou County; Mount Whitney and sources of King and Kern rivers).

NAMES IN USE.—Spruce Pine (Cal. lit.); Foxtail Pine (Cal.).

Pinus aristata Engelm. **Bristle-cone Pine.**

RANGE.—From Colorado through southern Utah, northern Arizona, and Nevada to southeastern California.

NAMES IN USE.—Hickory Pine (Cal. lit.); Bristle-cone Pine (Cal. lit.); Foxtail Pine (Cal. lit.).

Pinus resinosa Ait. **Red Pine.**

RANGE.—From Newfoundland and along the northern shores of St. Lawrence Gulf to northern Ontario (north of Abittibi Lake) to southern Manitoba (near southern end of Lake Winnipeg); southward through the Northern States to Massachusetts (Middlesex County), Pennsylvania (Chester County), northeastern Ohio (north of Cleveland), central Michigan (Saginaw), northern Wisconsin (Oshkosh and Eau Claire), and northeastern Minnesota.

NAMES IN USE.—Red Pine (Vt., N. H., N. Y., Wis., Minn., Ont.); Norway Pine (Me., N. H., Vt., Mass., N. Y., Wis., Mich., Minn., Ont.); Hard Pine (Wis.); Canadian Red Pine (Eng.).

Pinus torreyana Parry. **Torrey Pine.**

RANGE.—Southern California (Soledad River in San Diego County).

NAMES IN USE.—Soledad Pine (Cal.); Del Mar Pine (Cal.); Lone Pine (Cal.); Torrey Pine (Cal. lit.); Torrey's Pine.

Pinus arizonica Engelm. **Arizona Pine.**

RANGE.—Southern Arizona (Chiricahua, Santa Catalina, El Rincon, and Santa Rita mountains).

NAMES IN USE.—Arizona Yellow Pine (Cal.); Arizona Pine; Arizona 5-leaved Lumber Pine (Cal. lit.).

Pinus ponderosa Laws. **Bull Pine.**

RANGE.—From British Columbia (interior south of latitude 51°), and Dakota (Black Hills region) southward in the Pacific and Rocky Mountain region to western Texas and Mexico.

NAMES IN USE.—Yellow Pine (Cal., Colo., Mont., Idaho, Utah, Wash., Oreg.); Bull Pine (Cal., Wash., Utah, Idaho, Oreg.); Big Pine (Mont.); Long-leaved Pine (Utah, Nev.); Red Pine; Pitch Pine; Southern Yellow Pine; Heavy-wooded Pine (Eng.); Western Pitch Pine; Heavy Pine (Cal.); Foothills Yellow Pine; Sierra Brownbark Pine; Montana Black Pine (Cal. lit.); "Gambier Parry's Pine" (Eng. lit.).

Pinus ponderosa scopulorum Engelm. **Rock Pine.**

RANGE.—Rocky Mountain region.

NAMES IN USE.—Yellow Pine (Mont., Nebr.); Bull Pine (Colo.); Long-leaved Pine (Colo.); Rocky Mountain Yellow Pine (lit.).

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VARIETY DISTINGUISHED IN CULTIVATION.

Pinus ponderosa penduliformis Sudw. **Weeping Bull Pine.**

Pinus apacheca Lemmon. **Apache Pine.**

RANGE.—Southeastern Arizona (Chiricahua Mountains). Species insufficiently understood, and may prove to be a form of *P. ponderosa*.

Pinus mayriana Sudworth. **Arizona Long-leaf Pine.**

PINUS LATIFOLIA Sarg., not of authors.

RANGE.—Southern Arizona (Santa Rita Mountains). Range insufficiently known.

NAMES IN USE.—Broad-leaf Pine (lit.); Arizona Broad-leaf Pine (lit.); Mayr Pine (lit.).

Pinus jeffreyi "Oreg. Com." **Jeffrey Pine.**

RANGE.—California (Scotts Mountain in Siskiyou County and along Sierra Nevada Mountains to San Bernardino and San Jacinto mountains); Southern Oregon (Douglas County, 30 miles south of Roseburg).

NAMES IN USE.—Bull Pine (Cal.); Black Pine (Cal.); Western Black Pine (Cal. lit.); Pinos (Cal.); Truckee Pine (Nev.); Sapwood Pine (Cal.); Jeffrey Pine (Cal. lit.); Blackbark Pine (Cal. lit.); Redbark Pine (Cal. lit.); Peninsula Pine (Cal. lit.); Sierra Redbark Pine (Cal. lit.); Peninsula Black Pine (Cal. lit.).

Pinus chihuahuana Engelm. **Chihuahua Pine.**

RANGE.—Southwestern New Mexico and Arizona (Santa Rita and San Francisco mountains) and southward in Mexico.

NAMES IN USE.—Chihuahua Top-cone Pine (Cal. lit.).

Pinus contorta Loud. **Shore Pine.**

RANGE.—Coast region from Alaska to California (Mendocino County).

NAMES IN USE.—Scrub Pine; Knotty Pine; Tamarack (Cal.); Sand Pine (Oreg.); North Coast Scrub Pine (Cal. lit.); Bolander's Pine; Henderson's Pine.

Pinus murrayana "Oreg. Com." **Lodgepole Pine.**

RANGE.—From Alaska (Yukon River) and southward through interior British Columbia; the mountains of Washington and Oregon to California (Sierra Nevada Mountains to San Jacinto Mountains); plateau east of the Rocky Mountains (latitude 56°) and south through the Rocky Mountain region to New Mexico and northern Arizona.

NAMES IN USE.—Tamarack (Wyo., Utah, Mont., Cal.); Prickly Pine (Utah); White Pine (Mont.); Black Pine (Wyo.); Lodgepole Pine (Wyo., Mont., Idaho); Spruce Pine (Colo., Idaho, Mont.); Tamarack Pine (Cal.); Murray Pine (Cal. lit.).

Pinus sabiniana Dougl. **Gray Pine.**

RANGE.—California (Shasta County and southward in foothills of coast ranges and on western slopes of Sierra Nevada Mountains).

NAMES IN USE.—Sabine's Pine (Cal. lit.); Gray-leaf Pine (Cal.).

Pinus coulteri Lamb. **Coulter Pine.**

RANGE.—California (from Monte Diablo to Cuyamaca Mountains); possibly farther southward in Lower California.

NAMES IN USE.—Coulter's Pine (Cal.); Nut Pine (Cal.); Bigcone Pine (Cal.); Large-coned Pine (Eng. lit.).

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Pinus radiata Don. **Monterey Pine**

PINUS INSIGNIS Douglas in herb. ex Loudon.

RANGE.—California (Point Pinos on Monterey Bay, and along the coast from Pescadero to San Simeon Bay).

NAMES IN USE.—Monterey Pine (Cal.); Spreading-cone Pine (Cal. lit.); Nearly smooth-cone Pine (Cal. lit.); Remarkable Pine (Cal. lit.); Small-coned Monterey Pine (Cal. lit.); Two-leaved Insular Pine.[1]

Pinus attenuata Lemmon. **Knobcone Pine.**

PINUS TUBERCULATA Gord.

RANGE.—Oregon (McKinzie River and south on western slopes of Cascade and Sierra Nevada mountains) to California (coast ranges from Santa Cruz to San Jacinto Mountains).

NAMES IN USE.—Knobcone Pine (Oreg., Cal.); Prickly-cone Pine (Idaho); Sun-loving Pine (Cal. lit.); Sunny-slope Pine (Cal. lit.); Narrow-cone Pine (Cal. lit.); Tuberculated-coned Pine (Eng. lit.).

Pinus tæda Linn. **Loblolly Pine.**

RANGE.—South Atlantic and Gulf States from New Jersey (Cape May), southern Delaware and West Virginia (Wood, Mineral, Hampshire, and Hardy counties) to central Florida (Cape Malabar and Tampa Bay) and west to eastern Texas (Colorado River; in Bastrop County); northward into southeastern Indian Territory, Arkansas, and southern border of middle and west Tennessee.

NAMES IN USE.—Loblolly Pine (Del., Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex., Ark.); Oldfield Pine (Del., Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex., Ark.); Torch Pine (Eng. lit.); Rosemary Pine (Va., N. C., in part); Slash Pine (Va., N. C., in part); Longschat Pine (Del.); Longshucks (Md., Va.); Black Slash Pine (S. C.); Frankincense Pine (lit.); Shortleaf Pine (Va., N. C., S. C., La.); Bull Pine (Texas and Gulf region); Virginia Pine; Sap Pine (Va., N. C.); Meadow Pine (Fla.); Cornstalk Pine (Va.); Black Pine (Va.); Foxtail Pine (Va., Md.); Indian Pine (Va., N. C.); Spruce Pine (Va., in part); Bastard Pine (Va., N. C.); Yellow Pine (north Ala., N. C.); Swamp Pine (Va., N. C.); Longstraw Pine (Va., N. C., in part).

Pinus rigida Mill. **Pitch Pine.**

RANGE.—From southern New Brunswick (St. Johns River) to eastern Ontario (north shore of Lake Ontario and Lower Ottawa River) and southward in the Atlantic region to southern Virginia (Norfolk) and along the mountains to northern Georgia (Atlanta); west to western New York (Ithaca), northeastern Pennsylvania, eastern Ohio (border counties south of Canton) and Kentucky, eastern Tennessee (to Cumberland Mountains).

NAMES IN USE.—Pitch Pine (Vt., N. H., Mass., R. I., Conn., N. Y., N. J., Pa., Del., W. Va., N. C., S. C., Ga., Ohio, Ont., Md., Eng.); Long-leaved Pine (Del.); Longschat Pine (Del.); Hard Pine (Mass.); Yellow Pine (Pa.); Black Pine (N. C.); Black Norway Pine (N. Y.); Rigid Pine (Eng. lit.); Sap Pine (lit.).

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[1] Refers to the two-leafed form *Pinus radiata binnata* (Engelm.) Lemm., found on Santa Rosa, Santa Cruz, and Guadaloupe islands.

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Pinus serotina Michx. **Pond Pine.**

RANGE.—Coast region from North Carolina to Florida (head of St. Johns River, and probably farther south; on the west coast from Pensacola to Citrus County and probably much farther south). Range imperfectly known.

NAMES IN USE.—Marsh Pine (N. C.); Meadow Pine (N. C.); Pond Pine (N. C., S. C., Fla., Miss., La.); Loblolly Pine (N. C., Fla.); Spruce Pine (S. C., Ga.); Bastard Pine (S. C., Ga.); Bull Pine (S. C., Ga.).

Pinus virginiana Mill. **Scrub Pine.**

PINUS INOPS Solander ex Ait.

RANGE.—From New York (Staten Island) to South Carolina (Aiken River) and northern Alabama (Winston, Cullman, and Dekalb counties); west into southern Indiana, to middle Tennessee (Putnam County).

NAMES IN USE.—Jersey Pine (N. J., Pa., Del., N. C., S. C.); Scrub Pine (R. I., N. Y., Pa., Del., N. C., S. C., Ohio); Short Shucks (Md., Va.); Shortshat Pine (Del.); Spruce Pine (N. J., N. C.); Shortleaved (N. C.); Cedar Pine (N. C.); River Pine (N. C.); Nigger Pine (Tenn.); New Jersey Pine (lit.).

Pinus clausa (Engelm.) Sargent. **Sand Pine.**

RANGE.—Coast of Alabama (Baldwin County) and western Florida (to Pease Creek); east coast of Florida from St. Augustine to Halifax River.

NAMES IN USE.—Sand Pine (Fla., Ala.); Oldfield Pine (Fla.); Florida Spruce Pine (Ala.); Scrub Pine (Fla.); Spruce Pine (Fla.); Upland Spruce Pine (Fla.).

Pinus pungens Michx. f. **Table-mountain Pine.**

RANGE.—District of Columbia, Maryland, and Allegheny Mountain region from Pennsylvania to eastern and middle Tennessee and Georgia (Tallulah Falls).

NAMES IN USE.—Table-mountain Pine (Pa., Del., Md., S. C.); Southern Mountain Pine (Tenn.); Prickly Pine (N. C.).

Pinus muricata Don. **California Swamp Pine.**

RANGE.—California coast (Fort Bragg, Mendocino County, and south in coast ranges to San Luis Obispo County); Lower California (Cedros Islands and coast of Esenado and San Quitan).

NAMES IN USE.—Swamp Pine (Cal.); Dwarf Marine Pine (Cal.); Prickle-cone Pine (Cal.); Bishop's Pine (Cal. and Eng. lit.); Anthony's Prickle-cone Pine (Cal. lit.); Obispo Pine (Cal.)

Pinus echinata Mill. **Shortleaf Pine.**

PINUS MITIS Michx.

RANGE.—From New York (Staten Island) to Florida (Chattahoochee region) and west to southern Missouri, eastern Indian Territory, and northeastern Texas.

NAMES IN USE.—Yellow Pine (N. Y., N. J., Pa., Del., Va., N. C., Ala., Miss., La., Ark., Mo., Ill., Ind., Kans. (scarce), (Ohio, Eng. lit.); Shortleaved Pine (N. C., S. C., Ga., Ala., Miss., Fla., La., Tex., Ark.); Spruce Pine (Del., Miss., Ark.); Bull Pine (Va.); Shortshat Pine (Del.); Pitch Pine (Mo.); Poor Pine (Fla.); Shortleaved Yellow Pine; Rosemary Pine (N. C.); Virginia Yellow Pine (Va., in part); North Carolina Yellow Pine (N. C. and Va., in part); North Carolina Pine (N. C. and Va., in part); Carolina Pine (N. C. and Va., in part); Slash Pine (N. C., Va., in part); Oldfield Pine (Ala., Miss.).

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Pinus glabra Walt. **Spruce Pine.**

RANGE.—Coast region, from South Carolina (between latitude 31° and 33°) to Florida (Chattahoochee region) and west to Louisiana (Pearl River).

NAMES IN USE.—Spruce Pine (S. C., Ala., Fla.); Cedar Pine (Miss.); White Pine (S. C., Fla.); Walter's Pine (S. C.); Lowland Spruce Pine (Fla.); Poor Pine (Fla.); Kingstree (S. C.).

Pinus divaricata (Ait.) Du Mont de Cours. **Jack Pine.**

PINUS BANKSIANA Lamb.

RANGE.—New Brunswick to New Hampshire and west through Great Lake and Hudson Bay (southern shores) region to Great Bear Lake, Mackenzie River, and Rocky Mountains; south into northern Maine, northern New York, northern Indiana and Illinois, and central Minnesota.

NAMES IN USE.—Scrub Pine (Me., Vt., N. Y., Wis., Mich., Minn., Ont.); Gray Pine (Vt., Minn., Ont.); Jack Pine (Mich., Minn., Canada); Princes Pine (Ont.); Black Jack Pine (Wis.); Black Pine (Minn.); Cypress (Quebec to Hudson Bay); Canada Horn-cone Pine (Cal. lit.); Chek Pine; Sir Joseph Bank's Pine (Eng.); "Juniper" (Canada); Banksian Pine (lit.).

Pinus palustris Mill. **Longleaf Pine.**

RANGE.—Coast region, from southern Virginia (Norfolk) to Florida (Tampa Bay and Cape Canaveral) to eastern Texas (Trinity River); northward in Alabama to the northeastern part of the State (Clay and Walker counties), and northwestern (border counties) Georgia.

NAMES IN USE.—Longleaved Pine (Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex.); Southern Pine (N. C., Ala., Miss., La.); Yellow Pine (Del., N. C., S. C., Ala., Fla., La., Tex.); Turpentine Pine (N. C.); Rosemary Pine (N. C.); Brown Pine (Tenn.); Hard Pine (Ala., Miss., La.); Georgia Pine (general, Del.); Fat Pine (Southern States); Southern Yellow Pine (general); Southern Hard Pine (general); Southern Heart Pine (general); Southern Pitch Pine (general); Heart Pine (N. C. and South Atlantic region); Pitch Pine (Atlantic region); Longleaved Yellow Pine (Atlantic region); Longleaved Pitch Pine (Atlantic region); Longstraw Pine (Atlantic region); North Carolina Pitch Pine (Va., N. C.); Georgia Yellow Pine (Atlantic region); Georgia Heart Pine (general); Georgia Longleaved Pine (Atlantic region); Georgia Pitch Pine (Atlantic region); Florida Yellow Pine (Atlantic region); Florida Pine (Atlantic region); Florida Longleaved Pine (Atlantic region); Texas Yellow Pine (Atlantic region); Texas Longleaved Pine (Atlantic region).

Pinus heterophylla (Ell.) Sudworth. **Cuban Pine.**

PINUS CUBENSIS Griseb.

RANGE.—Coast region (60 to 100 miles inland), from South Carolina (Charleston) to southern Florida (Cape Canaveral and Biscayne Bay) and west to Louisiana (Pearl River).

NAMES IN USE.—Slash Pine (Ala., Miss., Ga., Fla.); Swamp Pine (Fla., Miss., Ala., in part); Bastard Pine (Ala. lumbermen, Fla.); Meadow Pine (Fla., eastern Miss., in part); Pitch Pine (Fla.); She Pitch Pine (Ga.); She Pine (Ga., Fla.); Spruce Pine (southern Ala.).

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LARIX Duham.

Larix laricina (Du Roi) Koch. **Tamarack.**

LARIX AMERICANA Michx.

RANGE.—From Newfoundland and Labrador to northern Pennsylvania, northern Indiana, Illinois, central Minnesota, and northwestward to Hudson Bay (Cape Churchill, Great Bear Lake, and Mackenzie River) (in Arctic Circle).

NAMES IN USE.—Larch (Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Wis., Minn., Ohio, Ont., Minn.); Tamarack (Me., N. H., Vt., Mass., R. I., N. Y., N. J., Pa., Ind., Ill., Wis., Mich., Minn., Ohio, Ont.); Hackmatack (Me., N. H., Mass., R. I., Del., Ill., Minn., Ont.); American Larch (Vt., Wis., nurserymen); Juniper (Me, N. Bruns. to Hudson Bay); Black Larch (Minn.); Epinette Rouge (Quebec); Ka neh-tens="The leaves fall" (Indians, N. Y.); Red Larch (Mich.); Hacmack (lit.).

Larix occidentalis Nutt. **Western Larch.**

RANGE.—Southern British Columbia (south of latitude 53°) and south in the Cascade Mountains to the Columbia River, and to western Montana; also in Blue Mountains of Washington and Oregon.

NAMES IN USE.—Tamarack (Oreg.); Hackmatack; Larch (Idaho, Wash., etc.); Red American Larch; Western Tamarack; Great Western Larch (Cal. lit.); Western Larch (Eng.)

Larix lyallii Parl. **Alpine Larch.**

RANGE.—High mountains (6,000 to 7,000 feet) of northwestern States, from Montana to Washington and Oregon, and northward in adjacent territory. Range imperfectly known.

NAMES IN USE.—Tamarack (Idaho, Wash., Oreg.); Larch (Idaho, Wash., Oreg.); Mountain Larch; Lyall's Larch (lit.); Woolly Larch (Cal. lit.).

PICEA Link.

Picea mariana (Mill.) B. S. P. **Black Spruce.**

PICEA NIGRA Link.

RANGE.—Newfoundland to Hudson Bay and northwestward to the Mackenzie River; southward in Michigan, Wisconsin, Minnesota, and in the eastern mountains to North Carolina and Tennessee.

NAMES IN USE.—Black Spruce (N. H., Vt., Mass., R. I., N. Y., Pa., W. Va., N. C., S. C., Wis., Mich., Minn., Ont., Eng.); Double Spruce (Me., Vt., Minn.); Blue Spruce (Wis.); Spruce (Vt.); White Spruce (W. Va.); Yew Pine (W. Va.); Juniper (N. C.); Spruce Pine (W. Va., Pa.); Ə Balsam (Del., N. C.); Epinette Jaune (Quebec); Water Spruce (Canada, Me.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Picea mariana doumetti (Carr.) Beissn.
Picea mariana pumila (Carr.) Sudw.
Picea mariana humilis Sudw.
Picea mariana argenteo-variegata (Beissn.) Sudw.
Picea mariana aurescens Sudw.
Picea mariana albescens Sudw.

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Picea rubens Sargent. **Red Spruce.**

PICEA RUBRA Diet.

RANGE.—Nova Scotia to North Carolina and Tennessee. Range imperfectly known.

NAMES IN USE.—Red Spruce; Yellow Spruce (N. Y.); North American Red Spruce (foreign lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Picea rubens cœrulea (Loud.) nom. nov.
PICEA RUBRA CŒRULEA (Loud.) Forbes.
Picea rubens pendula (Carr.) nom. nov.
PICEA RUBRA PENDULA Carr.
Picea rubens gracilis (Knight) nom. nov.
PICEA RUBRA GRACILIS (Knight) Carr.

Picea canadensis (Mill.) B. S. P. **White Spruce.**

PICEA ALBA Link.

RANGE.—Newfoundland to Hudson Bay and northwestward to Alaska; southward to northern New York, Michigan, Wisconsin, Minnesota, South Dakota, Montana, and British Columbia.

NAMES IN USE.—White Spruce (Vt., N. H., Mass., N. Y., Wis., Mich., Minn., Ont.); Single Spruce (Me., Vt., Minn.); Bog Spruce (New Eng.); Skunk Spruce (Wis., Me., New Eng., Ont.); Cat Spruce (Me., New Eng.); Spruce (Vt.), Pine (Hudson Bay); Double Spruce (Vt.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Picea canadensis glauca (Moench.) Sudw.
Picea canadensis acutissima (Beissn.) Sudw.
Picea canadensis compressa (Beissn.) Sudw.
Picea canadensis nana (Loud.) Sudw.
Picea canadensis nana glaucifolia Sudw.
Picea canadensis echinoformis (Carr.) Sudw.
Picea canadensis compacta gracilis (Beissn.) Sudw.
Picea canadensis compressiformis Sudw.
Picea canadensis nutans Sudw.
Picea canadensis aurea (Beissn.) Sudw.

Picea engelmanni[1] Engelm. **Engelmann Spruce.**

RANGE.—Northern Arizona and through the Rocky Mountain region to British Columbia.

NAMES IN USE.—Engelmann's Spruce (Utah); Balsam (Utah); White Spruce (Oreg., Colo., Utah, Idaho); White Pine (Idaho); Mountain Spruce (Mont.); Arizona Spruce (Cal. lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Picea engelmanni griseifolia Sudw.
Picea engelmanni argyrophylla Sudw.
Picea engelmanni minutifolia Sudw.

Picea parryana (André) Parry. **Blue Spruce.**

PICEA PUNGENS Engelm.

RANGE.—Central Rocky Mountain region—Colorado, Utah, and Wyoming.

NAMES IN USE.—Parry's Spruce (Utah); Blue Spruce (Colo.); Spruce; Balsam (Colo., Utah); White Spruce (Utah, Colo.); Silver Spruce (Colo.); Colorado Blue Spruce (Colo.); Prickly Spruce (lit.)

[1] Prof. J. G. Lemmon has recently described the following as distinct from the Engelmann Spruce: *Picea columbiana* Lemm. (=*P. engelmanni* Engelm. in part).

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VARIETIES DISTINGUISHED IN CULTIVATION.

Picea parryana glaucescens nom. nov.
PICEA PUNGENS GLAUCESCENS Sudw.
Picea parryana cyanea nom. nov.
PICEA PUNGENS CYANEA Sudw.
Picea parryana argentea (Beissn.) nom. nov.
PICEA PUNGENS ARGENTEA Beissn.
Picea parryana glauca pendens nom. nov.
PICEA PUNGENS GLAUCA PENDENS Sudw.

Picea sitchensis (Bong.) Trautv. & Mayer. **Sitka Spruce.**

RANGE.—Coast region (extending inland about 50 miles) from Alaska to northern California (Mendocino County).

NAMES IN USE.—Tideland Spruce (Cal., Oreg., Wash.); Menzies' Spruce; Western Spruce; Great Tideland Spruce (Cal. lit.).

Picea breweriana Wats. **Weeping Spruce.**

RANGE.—Northern California (Siskiyou Mountains), very local, and southern Oregon.

NAMES IN USE.—Weeping Spruce; Brewer's Spruce; Siskiyou Spruce (Germ. lit.).

TSUGA Carr.

Tsuga canadensis (Linn.) Carr. **Hemlock.**

RANGE.—Nova Scotia to Minnesota (Carleton County), Wisconsin, Michigan, and southward in the Atlantic region along the mountains to northern Alabama (Winston County) and Georgia.

NAMES IN USE.—Hemlock (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Va., N. C., S. C., Ky., Wis., Mich., Minn., Ohio, Ont.); Hemlock Spruce (Vt., R. I., N. Y., Pa., N. J., W. Va., N. C., S. C., England, cult.); Spruce (Pa., W. Va.); Spruce Pine (Pa., Del., Va., N. C., Ga.); Oh-neh-tah="Greens on the stick" (N. Y. Indians); Canadian Hemlock (lit.); New England Hemlock (lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Tsuga canadensis pumila Sudw.
Tsuga canadensis compacta minima Sudw.
Tsuga canadensis globosa Beissn.
Tsuga canadensis gracilis Carr.
Tsuga canadensis milfordensis Nichol.
Tsuga canadensis erecta Sudw.
Tsuga canadensis columnaris Beissn.
Tsuga canadensis macrophylla Beissn.
Tsuga canadensis paucifolia Sudw.
Tsuga canadensis microphylla Beissn.
Tsuga canadensis parvifolia (Veitch) Beissn.
Tsuga canadensis pendula Beissn.
Tsuga canadensis aurea Beissn.
Tsuga canadensis albo-spica (Gord.) Beissn.
Tsuga canadensis argenteo-variegata Sudw.
Tsuga canadensis argentifolia Sudw.

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Tsuga caroliniana Engelm. **Carolina Hemlock.**

RANGE.—Mountains of southwestern Virginia, western North Carolina, and northern Georgia; very local.

NAMES IN USE.—Hemlock (N. C., S. C.); Southern Hemlock (lit.).

Tsuga heterophylla (Raf.) Sargent. **Western Hemlock.**

TSUGA MERTENSIANA authors, not Carr.

RANGE.—Alaska to Idaho and Montana and southward (in the Cascade and coast ranges) to California (Marin County).

NAMES IN USE.—Hemlock Spruce (Cal.); Western Hemlock (Cal.); Hemlock (Oreg., Idaho, Wash.); Western Hemlock Spruce (lit.); California Hemlock Spruce; Western Hemlock Fir (Eng.); Prince Albert's Fir (Eng.); Alaska Pine (Northwestern lumbermen).

VARIETY DISTINGUISHED IN CULTIVATION.

Tsuga heterophylla latifolia nom. nov.
TSUGA MERTENSIANA LATIFOLIA Sudw.

Tsuga mertensiana (Bong.) Carr. **Black Hemlock.**

TSUGA PATTONIANA (Jeffr.) Engelm.

RANGE.—Northern British Columbia to Idaho and northern Montana, and southward to California (Sierra Nevada Mountains); usually above 10,000 feet; at sea level only in region of Sitka.

NAMES IN USE.—Williamson's Spruce (Cal.); Weeping Spruce (Cal.); Alpine Spruce (Cal.); Hemlock Spruce (Cal.); Patton's Spruce; Alpine Western Spruce.

Tsuga mertensiana hookeriana (Carr.) nom. nov. **Hooker Hemlock.**

TSUGA PATTONIANA HOOKERIANA (Carr.) Lemmon.

VARIETY DISTINGUISHED IN CULTIVATION.

Tsuga mertensiana argentea (Beissn.) nom. nov.
TSUGA PATTONIANA ARGENTEA Beissn.

PSEUDOTSUGA Carr.

Pseudotsuga taxifolia[1] (Lam.) Britton. **Douglas Spruce.**

PSEUDOTSUGA DOUGLASII Carr.

RANGE.—From the Rocky Mountain region (in United States) and northward to central British Columbia; Pacific coast.

NAMES IN USE.—Red Fir (Oreg., Wash., Idaho, Utah, Mont., Colo.); Douglas Spruce (Cal., Colo., Mont.); Douglas Fir (Utah, Oreg., Colo.);

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[1] DOUGLAS SPRUCE (*Pseudotsuga taxifolia* vs. *Pseudotsuga mucronata*).—The retention of the specific term *taxifolia* in the genus *Pseudotsuga* is held by some botanists to be at variance with the meaning of the law excluding the use of synonyms and homonyms. Lambert first described the Douglas Spruce as *Pinus taxifolia* (Pinus ed. 1, 51, t. 33) in 1803, not knowing that in 1796 Salisbury had already described another coniferous tree, a true fir and now known as *Abies balsamea* (L.) Mill., as *Pinus taxifolia*. At this point, according to botanical laws now observed, the Douglas Spruce was without a name, since supposing the tree to be a true pine, there could exist but one *Pinus taxifolia* and that one only the earlier, or *Pinus taxifolia* Salisbury (1796). So far as is known Poiret (in Lamarck, Enc. Méth. Bot., vi, 523) was the next to describe this tree in 1804, under the following designation: "*Abies taxifolia* Lambert." But as we know Lambert did not write "*Abies taxifolia*," but *Pinus taxifolia*,

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Yellow Fir (Oreg., Mont., Idaho, Wash.); Spruce (Mont.); Fir (Mont.); Oregon Pine (Cal., Wash., Oreg.); Red Pine (Utah, Idaho, Colo.); Puget Sound Pine (Wash.); Douglas-tree; Cork-barked Douglas Spruce (var. suberosa Lemm.).

Pseudotsuga taxifolia pendula (Engelm.) Sudworth.

Weeping Douglas Spruce

VARIETIES[1] DISTINGUISHED IN CULTIVATION.

Pseudotsuga taxifolia pendula cærulea Sudw.
Pseudotsuga taxifolia glauca (Beissn.) Sudw.
Pseudotsuga taxifolia fastigiata (Knight) Sudw.

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the *Abies taxifolia* must be taken as original with Poiret, and is the first name in the plant's history which could be considered tenable, as there is none other like it in form. Rafinesque, however, subsequently described the Douglas Spruce under still another name, *Abies mucronata* (Atl. Journ., 120, 1832), which brings us to the point of controversy.

Now, this tree at present being considered a *Pseudotsuga*, should bear its earliest specific name in combination. It is here maintained that this combination should be *Pseudotsuga taxifolia* (Poir.) Britton, founded on the first tenable name applied to the plant, that is, *Abies taxifolia* Poiret (l. c.). It is held by others, however, that *Pseudotsuga mucronata* (Raf.) Sudworth should be maintained, as I myself did at one time, to the exclusion of *Pseudotsuga taxifolia*. Those opposing the use of the latter name base their objection on the argument that it is founded on a synonym (*Abies taxifolia*) derived from the homonym *Pinus taxifolia* Lambert (1803), which is, to be sure, invalidated by *Pinus taxifolia* Salisbury (1796). Clearly *Pinus taxifolia* Lambert (1803) is an inert name to which no derivative reference can be made. The supposition, however, that *Abies taxifolia* Poiret (1804), being founded or derived by Poiret from the homonym *Pinus taxifolia* Lambert, renders the former name untenable, is believed to be an entirely erroneous interpretation of the meaning of the law touching this mooted question. For, so far as is known, and independent of its supposed derivation, *Abies taxifolia* Poiret (1804) is the first name in form of its kind proposed, and is therefore inviolable. Moreover, the proof that *Abies taxifolia* Poiret is actually derived from the homonym *Pinus taxifolia* Lambert, and therefore untenable, is faulty, because Lambert is quoted (by Poiret, l. c.) as writing what he did not write. But from still another point of view and disregarding the taxonomic relationship of *Pseudotsuga taxifolia* with *Abies taxifolia* Poiret, were *Pseudotsuga taxifolia* not now in existence, no one could deny that according to present practice the name could be created and applied for any other species of *Pseudotsuga*. It must stand because it would be the first and only one of its type published. For the same reason the specific term *taxifolia* seems perfectly tenable for the Douglas Spruce, as it conflicts with no other like specific or varietal term in the genus *Pseudotsuga*.

It would appear that the essential point in the application of the law preventing the use of duplicate or synonymous names and terms should be strictly a mechanical one, regardless of any synthetic relationship which may exist between names.

[1] Prof. J. G. Lemmon has proposed the following varieties of the Douglas Spruce, which are as yet unknown to me in nature:

Pseudotsuga taxifolia var. *suberosa* Lemm.—Small tree, distinguished by its thick, corky bark, thin foliage, and small ovate cones, 1 to 2 inches long, and found on the principal mountains of northern Arizona and New Mexico.

Pseudotsuga taxifolia var. *elongata* Lemm.—Distinguished by its "comparatively thin, whitish (outside), shallow-furrowed bark and conspicuous, long, narrow, yellowish, shiny cones, 3½ to 4½ inches long and one-fifth as thick, with comparatively short bracts and thin, soft scales." Found at base of Mount Hood, Oregon.

Pseudotsuga mucronata var. *palustris* Lemm (=*Abies mucronata* var. *palustris* Raf.).—Rafinesque founded this form on the following: "Grows in swamps, only 30 feet high, and with spreading branches." Said to occur in the region of the lower Columbia River.

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Pseudotsuga taxifolia standishiana (Gord.) Sudw.
Pseudotsuga taxifolia dumosa (Carr.) Sudw.
Pseudotsuga taxifolia compacta (Beissn.) Sudw.
Pseudotsuga taxifolia elegans (Beissn.) Sudw.
Pseudotsuga taxifolia argentea (Beissn.) Sudw.
Pseudotsuga taxifolia argentea densa Sudw.
Pseudotsuga taxifolia variegata (McDon.) Sudw.
Pseudotsuga taxifolia stairi (Beissn.) Sudw.
Pseudotsuga taxifolia brevifolia (Hort. Kew.) Sudw.
Pseudotsuga taxifolia revoluta (Hort. Kew.) Sudw.

Pseudotsuga macrocarpa (Torr.) Mayr. **Bigcone Spruce**

RANGE.—Southern California (San Bernardino Mountains to the Cuyamaca Mountains).

NAMES IN USE.—Spruce (Cal.); Hemlock (Cal.); Bigcone Spruce (lit.); Bigcone Douglas Spruce (lit.).

ABIES Duham.

Abies fraseri (Pursh) Lindl. **Fraser Fir.**

RANGE.—Mountains of North Carolina and Tennessee.

NAMES IN USE.—Balsam (N. C., Tenn.); Balsam Fir (N. C.); Double Fir Balsam (Tenn.); Double Spruce (N. C.); She Balsam (N. C.); She Balsam Fir (N. C.); Mountain Balsam (N. C.); Healing Balsam.

Abies balsamea (Linn.) Mill. **Balsam Fir.**

RANGE.—From Newfoundland and Labrador to Hudson Bay and northwestward to Great Bear Lake region, and south to Pennsylvania (and along high mountains to Virginia), Michigan, and Minnesota.

NAMES IN USE.—Balsam Fir (N. H., Vt., Mass., R. I., N. Y., Pa., W. Va., Wis., Mich., Minn., Nebr., Ohio, Ont.; Eng. cult.); Balsam (Vt., N. H., N. Y.); Canada Balsam (N. C.); Balm of Gilead (Del.); Balm of Gilead Fir (N. Y., Pa.); Blister Pine (W. Va.); Fir Pine (W. Va.); Fir-tree (Vt.); Single Spruce (N. Bruns. to Hudson Bay); Silver Pine (Hudson Bay); Sapin (Quebec); Cho-koh-tung="Blisters" (N. Y. Indians).

VARIETIES DISTINGUISHED IN CULTIVATION.

Abies balsamea hudsonia (Knight) Veitch.
Abies balsamea brachylepis Willk.
Abies balsamea longifolia (Loud.) Endl.
Abies balsamea cærulea Carr.
Abies balsamea hemisphærica Sudw.
Abies balsamea prostrata (Knight) Carr.
Abies balsamea paucifolia Sudw.
Abies balsamea nudicaulis Carr.
Abies balsamea versicolor Sudw.
Abies balsamea argentifolia Sudw.

Abies lasiocarpa (Hook.) Nutt. **Alpine Fir.**

RANGE.—Rocky Mountain region from Colorado to Montana and Idaho, and westward through northern Oregon and northward to Alaska (latitude 60°).

NAMES IN USE.—Sub-Alpine Fir (Utah); Balsam (Colo., Utah, Idaho, Oreg.); White Fir (Idaho, Mont.); White Balsam; Oregon Balsam-tree

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(Cal.); Pumpkin-tree; Alpine Fir; Mountain Balsam (mountains of Utah and Idaho); Down-cone Fir (lit.); Downy-cone Sub-Alpine Fir (Cal. lit.).

VARIETY DISTINGUISHED IN CULTIVATION.

Abies lasiocarpa cærulescens (Beissn.) Sudw.

Abies arizonica Merriam. **Arizona Cork Fir.**

RANGE.—At present known only from Arizona (San Francisco Mountains).

Abies grandis Lindl. **Lowland Fir.**

RANGE.—Coast region from Vancouver Island to California (Mendocino County), and from Washington and Oregon to northern Idaho and Montana.

NAMES IN USE.—White Fir (Cal., Oreg., Idaho); Silver Fir (Mont., Idaho); Yellow Fir (Mont., Idaho); Oregon White Fir (Cal.); Western White Fir; Grand or Oregon White Fir (Cal. lit.); Great California Fir (lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Abies grandis aurifolia Sudw.
Abies grandis crassa Sudw.

Abies concolor (Gord.) Parry. **White Fir.**

RANGE.—Oregon (Siskiyou Mountains) to southern California (San Bernardino County); northern Arizona and New Mexico to Colorado and Utah (Wasatch Mountains).

NAMES IN USE.—White Fir (Cal., Idaho, Utah, Colo.); Balsam Fir (Cal., Idaho, Colo.); Silver Fir (Cal.); Balsam (Cal.); White Balsam (Utah); Bastard Pine (Utah); Balsam-tree (Idaho); Black Gum (Utah); California White Fir (Cal.); Colorado White Fir (Cal. lit.); Concolor Silver Fir (Eng. lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Abies concolor pendens (Beissn.) Sudw.
Abies concolor varia Sudw.
Abies concolor purpurea Sudw.
Abies concolor purpurea compressa Sudw.
Abies concolor angustata Sudw.

Abies concolor lowiana (Murr.) Lemmon. **Pale-leaf White Fir.**

RANGE.—California (Sierra Nevada Mountains) and southern Oregon (Siskiyou Mountains).

NAMES IN USE.—Pale-leaved White Fir (Cal. lit.); California White Fir.

Abies venusta (Dougl.) Koch. **Bristle-cone Fir.**

RANGE.—Southern California (Santa Lucia Mountains on the northern boundary of San Luis Obispo County and 40 miles northward).

NAMES IN USE.—Fringed Spruce, Bristle-cone Fir (Cal.); Santa Lucia Fir (Eng. lit.).

Abies amabilis (Loud.) Forb. **Amabilis Fir.**

RANGE.—From British Columbia (Fraser River and southward in the Cascade Mountains) to Washington and Oregon.

NAMES IN USE.—Red Fir; Red Silver Fir (Western Mountains); Fir (Cal.); Lovely Red Fir (Cal. lit.); Lovely Fir (Cal. lit.); Amabilis or Lovely Fir (Cal. lit.); "Larch" (Oreg. lumbermen).

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Abies nobilis Lindl. **Noble Fir.**

RANGE.—Washington (coast mountains in southwestern part of State; Olympic Mountains on Solduc River; from Mount Baker southward in the Cascade Mountains) to Oregon (Browder Ridge on head waters of McKinzie River in Lane County). Range at present but little known.

NAMES IN USE.—Red Fir (Oreg.); "Larch" (Oreg. lumbermen); Noble Fir (Oreg.); Bigtree; Feather-cone Red Fir (Cal. lit.); Noble or Bracted Red Fir (Cal. lit.); Tuck Tuck (Pacific Indians).

VARIETIES DISTINGUISHED IN CULTIVATION.

Abies nobilis glaucifolia Sudw.
Abies nobilis robustifolia Sudw.

Abies shastensis Lemmon. **Shasta Fir.**

RANGE.—Southern Oregon (Cascade Mountains) and California (Mount Shasta, Mount Eddy, Trinity Mountain, Scotts Mountain). Range as yet insufficiently understood.

NAMES IN USE.—Shasta Red Fir (Cal. lit.); Shasta Fir (Cal. lit.).

Abies magnifica Murr. **Red Fir.**

RANGE.—California (Mount Shasta and along the western slopes of Sierra Nevada Mountains).

NAMES IN USE.—Red Fir (Cal.); California Red-bark Fir (Cal.); Magnificent Fir (Cal. lit.); California Red Fir (Cal. lit.); Golden Fir (Cal. lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Abies magnifica cyanea Sudw.
Abies magnifica xanthocarpa Lemmon. **Yellow-fruit Fir.**

TAXODIUM Rich.

Taxodium distichum (Linn.) Rich. **Bald Cypress.**

RANGE.—From southern Delaware (Sussex County and southward in the coast region) to Florida (Mosquito Inlet and Cape Romano); westward in the Gulf coast region to Texas (Devils River) and northward through Louisiana, Arkansas, and eastern Mississippi and Tennessee, southeastern Missouri, western and northwestern Kentucky, southern Illinois, and southwestern Indiana (Knox County).

NAMES IN USE.—Bald Cypress (Del., N. C., S. C., Ala., La., Fla., Tex., Ark., Mo., Ill., Ind.); White Cypress (N. C., S. C., Fla., Miss.); Black Cypress (N. C., S. C., Ala., Tex.); Red Cypress (Ga., Miss., La., Tex.); Swamp Cypress (La.); Cypress (Del., N. C., S. C., Fla., Miss., Ky., Mo., Ill.); Deciduous Cypress (Del., Ill., Tex.); Southern Cypress (Ala.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Taxodium distichum pendulum (Forb.) Carr.
Taxodium distichum pendulum elegans Beissn.
Taxodium distichum pendulum novum Beissn.
Taxodium distichum patens (Ait.) Endl.
Taxodium distichum denudatum Carr.
Taxodium distichum imbricarium (Nutt.) Sarg.
Taxodium distichum knighti Carr.
Taxodium distichum pyramidatum Carr.

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Taxodium distichum microphyllum (Brong.) Henk. and Hochst.
Taxodium distichum intermedium Carr.
Taxodium distichum nanum Carr.
Taxodium distichum nigrum Gord.

SEQUOIA Endl.

Sequoia washingtoniana[1] (Winsl.) Sudworth. **Bigtree.**

SEQUOIA GIGANTEA Decaisne.

RANGE.—California (from latitude 39° to a little south of latitude 36°, that is, from middle fork of American River and along the western slope of Sierra Nevada Mountains to the head waters of Deer Creek).

NAMES IN USE.—Sequoia (Cal.); Bigtree (Cal.); Giant Sequoia (Cal.); Mammoth-tree (Cal., and in Eng. cult.)

VARIETIES DISTINGUISHED IN CULTIVATION.

Sequoia washingtoniana pendula (Beissn.) Sudw.
Sequoia washingtoniana glauca (Gord.) Sudw.
Sequoia washingtoniana aurea (Beissn.) Sudw.
Sequoia washingtoniana argentea (Beissn.) Sudw.
Sequoia washingtoniana variegata (Gord.) Sudw.
Sequoia washingtoniana holmsi (Beissn.) Sudw.
Sequoia washingtoniana glaucescens pyramido-compacta Sudw.
Sequoia washingtoniana pygmæa (Beissn.) Sudw.

Sequoia sempervirens (Lamb.) Endl. **Redwood.**

RANGE.—From the southern borders of Oregon (on Chetco River, about 6 miles from mouth, and on Winchuck River), and southward in the coast region (20 to 30 miles inland) through California (to Salmon Creek Canyon, 12 miles south of Punta Gorda, Monterey County).

NAMES IN USE.—Redwood (Cal. and Am. lit.); Sequoia (Cal.); Coast Redwood (Cal.); California Redwood (Eng. lit.).

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[1] BIGTREE (*Sequoia wellingtonia* vs. *Sequoia washingtoniana*).—It is held by some botanists that since the long-used name for this tree, *S. gigantea*, is now excluded (for reasons shown below), *S. wellingtonia* is the next tenable name, and the really older name *S. washingtoniana* should be neglected because thought not to be technically established. The first name applied to this tree is *Wellingtonia gigantea* Lindley (London Gard. Chron., 820, 823, 1853). The second name is *Sequoia gigantea* Decaisne (Bull. Bot. Soc. France, I, 70, 1854). The third name is *Taxodium Washingtonianum* Winslow (Calif. Farmer, September, 1854). The fourth name is *Sequoia Wellingtonia* Seeman (Bonplandia, III, 27, 1855).

The Bigtree is now conceded to rightly belong to the genus *Sequoia* of Endlicher (Syn. Conif., 147, 1847), and the specific term *gigantea* being the first applied, the apparently correct name would be *Sequoia gigantea*, the name applied by Decaisne (l. c., 1854). But this name being identical with one previously applied by Endlicher in 1847 to the California Redwood, must, by reason of being antedated, fall into synonymy and the next oldest name be sought for the Bigtree.

Passing over Winslow's *Taxodium Washingtonianum* (l. c., 1854) on the ground that it is thought not to be properly published, some botanists would now apply Seeman's *Sequoia Wellingtonia* (l. c., 1855). It is here maintained, however, that the rightful name should be *Sequoia washingtoniana* (Winslow) Sudw., and for the following reasons:

It has been asserted that *Taxodium Washingtonianum* Winslow (l. c., 1854) is technically unpublished, and therefore to be disregarded. The writer believes this name

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VARIETIES DISTINGUISHED IN CULTIVATION.

Sequoia sempervirens gracilis Carr.
Sequoia sempervirens taxifolia Carr.
Sequoia sempervirens adpressa Carr.
Sequoia sempervirens picta Sudw.
Sequoia sempervirens albo-spica (Gord.) Beissn.
Sequoia sempervirens glauca Gord.

LIBOCEDRUS Endl.

Libocedrus decurrens Torr. **Incense Cedar.**

RANGE.—From Oregon (North Fork of Santiam River and southward on the western slopes of the Cascade Mountains); through California (western slopes of Sierra Nevada Mountains and coast ranges from southern border of Mendocino County to San Bernardino, San Jacinto, and Cuayamaca mountains); western Nevada; Lower California (Mount San Pedro Martir).

NAMES IN USE.—White Cedar (Cal., Oreg.); Cedar (Cal., Oreg.); Incense Cedar (Cal., Oreg.); Post Cedar (Cal., Nev.); Juniper (Nev.); Bastard Cedar (Cal., Wash.); Red Cedar; California Post Cedar (Cal. lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Libocedrus decurrens depressa Gord.
Libocedrus decurrens columnaris Beissn.
Libocedrus decurrens compacta Beissn.
Libocedrus decurrens glauca Beissn.

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was tenably published, a conviction which is supported by the following quotation from Winslow's published letter (l. c., 1854):

"The name that has been applied to this tree by Professor Lindley, an English botanist, is *Wellingtonia gigantea*." * * *

"If the tree be a *Taxodium*, let it be called *Taxodium Washingtonianum*. If a new genus, *Washingtonia Californica*."

According to Article VI of the Rochester Code of laws adopted for botanical nomenclature, Winslow's *Taxodium Washingtonianum* is validly published by reason of his having fulfilled the essential conditions of the following clause of Article VI: "Publication of a species consists * * * (2) in the publishing of a binomial with reference to a previously published species as a type."

This is a common and expedient method employed by botanists in publishing new names for plants found to have been previously characterized under synonyms, which results in duplicate names in the same genus, and therefore often leaves a plant without a tenable name. The method of referring to the "previously published species as a type" is usually to print such species' name and author in connection with the newly proposed name, and in such a way that the two designations are seen to be presented as equivalents, the one to replace the other.

Now, since *Wellingtonia gigantea* Lindley is a recognized "previously published species," it would seem undeniable that Winslow's intention was to supplant Lindley's name by *Taxodium Washingtonianum*—entirely, of course, because his American patriotism preferred that an American monster tree should bear the name of an American rather than that of an English general. It is maintained here that Winslow definitely pointed out the tree he had in mind by stating that Lindley had called it *Wellingtonia gigantea* (an undisputably published name), and that he effected the publication of *Taxodium Washingtonianum* for this tree by proposing this name as a substitute for Lindley's name.

In interpreting the fundamental object of the article cited for the publication of species and applying it to all cases likely to arise, it would seem the duty of the interpreter to abide by the principle involved in the law, and to be influenced rather by the actual meaning of a describer's combined words than by his unfortunate lack of technical procedure in description.

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THUJA Linn.

Thuja occidentalis Linn. **Arborvitæ.**

RANGE.—From New Brunswick to Lake Winnipeg and south to central Minnesota and Michigan, northern Illinois, and in the Atlantic region along the mountains to North Carolina and eastern Tennessee (Holston River).

NAMES IN USE.—Arborvitæ (Me., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Va., W. Va., Ind., Ill., Wis., Mich., Minn., Ohio, Ont.); White Cedar (Me., N. H., Vt., R. I., Mass., N. Y., N. J., Va., N. C., Wis., Mich., Minn., Ont.); Cedar (Me., Vt., N. Y.); American Arborvitæ (N. Y. and in cult. Eng.); Oo-soo-ha-tah=Feather-leaf (Indians); Vitæ (Del.); Atlantic Red Cedar (Cal. lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Thuja occidentalis ellwangeriana (Gord.) Beissn.
Thuja occidentalis spaethi Beissn.
Thuja occidentalis wareana Gord.
Thuja occidentalis wareana lutescens Beissn.
Thuja occidentalis wareana globosa Beissn.
Thuja occidentalis densa Gord.
Thuja occidentalis walthamensis Gord.
Thuja occidentalis fastigiata Beissn.
Thuja occidentalis fastigiata nova Beissn.
Thuja occidentalis l'haveana Beissn.
Thuja occidentalis rosenthali Beissn.
Thuja occidentalis viridis Beissn.
Thuja occidentalis theodonensis Beissn.
Thuja occidentalis tatarica Beissn.
Thuja occidentalis riversi Beissn.
Thuja occidentalis vervæneana Gord.
Thuja occidentalis lutea Veitch.
Thuja occidentalis lutea humilis Sudw.
Thuja occidentalis aurea Gord.
Thuja occidentalis varia Sudw.
Thuja occidentalis pendula Gord.
Thuja occidentalis pendula glaucescens Sudw.
Thuja occidentalis reflexa Carr.
Thuja occidentalis bodmeri Beissn.
Thuja occidentalis athrotaxoides Beissn.
Thuja occidentalis recurvata Beissn.
Thuja occidentalis recurvata argenteo-variegata Beissn.
Thuja occidentalis recurva pusilla Sudw.
Thuja occidentalis denudata Beissn.
Thuja occidentalis asplenifolia Carr.
Thuja occidentalis gracilis Gord.
Thuja occidentalis filicoides Beissn.
Thuja occidentalis cristata Gord.
Thuja occidentalis boothi Beissn.
Thuja occidentalis globosa Gord.
Thuja occidentalis globularis Beissn.
Thuja occidentalis hoveyi Gord.
Thuja occidentalis spihlmanni Beissn
Thuja occidentalis frœbeli Beissn.
Thuja occidentalis parva Sudw.

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Thuja occidentalis albo-variegata Beissn.
Thuja occidentalis aureo-variegata Beissn.
Thuja occidentalis argentea Gord.
Thuja occidentalis alba Gord.
Thuja occidentalis little-gem Beissn.
Thuja occidentalis silver-queen Beissn.

Thuja plicata Don. **Giant Arborvitæ.**

THUYA GIGANTEA Nutt.

RANGE.—From coast of southern Alaska to northern California (Mendocino County); eastward through British Columbia and northern Washington to northern Idaho (Cœur d'Alene, Bitter Root, and Salmon River mountains) and Montana; western slopes Rocky Mountains.

NAMES IN USE.—Red Cedar (Idaho, Oreg., Wash.); Canoe Cedar (Oreg., Wash.); Arborvitæ (Cal.); Shinglewood (Idaho); Gigantic Cedar (Cal.); Cedar (Oreg.); Gigantic Red Cedar (Cal. lit.); Western Cedar; Gigantic or Pacific Red Cedar (Cal. lit.); Lobb's Arborvitæ (in cult. Eng.); Pacific Red Cedar (Cal. lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Thuja plicata gracillima (Beissn.) Sudw.
Thuja plicata atrovirens (Gord.) Sudw.
Thuja plicata aurescens (Beissn.) Sudw.
Thuja plicata argenteo-versicolor Sudw.
Thuja plicata flava Sudw.
Thuja plicata variegata Carr.
Thuja plicata compacta (Carr.) Beissn.
Thuja plicata llaveana Gord.
Thuja plicata minima Gord.
Thuja plicata erecta (Gord.) Sudw.
Thuja plicata pumila (Gord.) Sudw.
Thuja plicata penduliformis Sudw.
Thuja plicata cristatiformis Sudw.

CUPRESSUS Linn.

Cupressus macrocarpa Hartw. **Monterey Cypress.**

RANGE.—Southern California coast (from Cypress Point to south shores of Carmel Bay and on Point Lobos).

NAME IN USE.—Monterey Cypress (Cal.)

VARIETIES DISTINGUISHED IN CULTIVATION.

Cupressus macrocarpa angulata Lemm.
Cupressus macrocarpa lambertiana (Carr.) Mast.
Cupressus macrocarpa crippsii Mast.

Cupressus goveniana Gord. **Gowen Cypress.**

RANGE.—California coast region (Mendocino County to San Diego County).

NAME IN USE.—North Coast Cypress (Cal. lit.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Cupressus goveniana parva Sudw.
Cupressus goveniana huberiana Carr.
Cupressus goveniana glaucifolia Sudw.

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Cupressus goveniana gracilis (Nels.) Carr.
Cupressus goveniana cornuta Carr.
Cupressus goveniana viridis Carr.
Cupressus goveniana attenuata (Gord.) Carr.

Cupressus macnabiana Murr. **Macnab Cypress.**

RANGE.—California (south and west of Clear Lake, Lake County; very rare; once reported from the southern base of Mount Shasta, but at present not known to exist there).

NAMES IN USE.—Cypress; White Cedar; Shasta Cypress (Cal.); MacNab's Cypress (cult. Eng., Eu.); California Mountain Cypress (Cal. lit.).

Cupressus arizonica Greene. **Arizona Cypress.**

CUPRESSUS GUADALUPENSIS Sarg., not Wats.

RANGE.—Arizona (central, eastern, and southern mountains; Santa Rita, Santa Catalina, and Chihuahua mountains); Mexico (mountains of Sonora and Chihuahua).

NAMES IN USE.—Yew (Ariz.); Arizona Cypress (Ariz.); Red-bark Cypress (Ariz.); Arizona Red-bark Cypress.

CHAMÆCYPARIS Spach.

Chamæcyparis thyoides (L.) B. S. P. **White Cedar.**

CHAMÆCYPARIS SPHÆROIDEA Spach.

RANGE.—Coast region from southern Maine to northern Florida and westward to Mississippi (Pearl River).

NAMES IN USE.—White Cedar (Mass., R. I., N. Y., N. J., Pa., Del., N. C., S. C., Fla., Ala., Miss.); Swamp Cedar (Del.); Post Cedar (Del.); Juniper (Ala., N. C., Va.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Chamæcyparis thyoides glauca (Endl.) Sudw.
Chamæcyparis thyoides crocea Sudw.
Chamæcyparis thyoides variegata (Loud.) Sudw.
Chamæcyparis thyoides atrovirens (Knight) Sudw.
Chamæcyparis thyoides pyramidata (Beissn.) Sudw.
Chamæcyparis thyoides fastigiata cinereo-folia Sudw.
Chamæcyparis thyoides penduliformis Sudw.
Chamæcyparis thyoides hoveyi (Veitch) Sudw.
Chamæcyparis thyoides nana (Loud.) Sudw.
Chamæcyparis thyoides leptoclada (Gord.) Sudw.
Chamæcyparis thyoides pumila (Carr.) Sudw.
Chamæcyparis thyoides ericoides (Knight) Sudw.

Chamæcyparis nootkatensis (Lamb.) Spach. **Yellow Cedar.**

CHAMÆCYPARIS NUTKAËNSIS Spach.

RANGE.—Coast region and islands from Sitka through Washington and Oregon (in Cascade Mountains as far as the Santiam River and Mount Jefferson); east in Washington to the head waters of Yakima River.

NAMES IN USE.—Yellow Cedar (Oreg.); Sitka Cypress (Oreg., Cal.); Yellow Cypress (Oreg., Wash.); Nootka Cypress (Cal. lit.); Nootka Sound Cypress (cult. Eng.); Alaska Ground Cypress (Cal. lit.); Alaska Cypress (Cal. lit.).

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VARIETIES DISTINGUISHED IN CULTIVATION.

Chamæcyparis nootkatensis viridifolia Sudw.
Chamæcyparis nootkatensis cinerascens Sudw.
Chamæcyparis nootkatensis cinerascens genuina Sudw.
Chamæcyparis nootkatensis cinerascens aureo-discolor Sudw.
Chamæcyparis nootkatensis argenteo-varians Sudw.
Chamæcyparis nootkatensis aureo-versicolor Sudw.
Chamæcyparis nootkatensis zanthophylla Sudw.
Chamæcyparis nootkatensis pendens Sudw.
Chamæcyparis nootkatensis compacta (Veitch) Beissn.
Chamæcyparis nootkatensis compressa Beissn.
Chamæcyparis nootkatensis nidiformis Beissn.
Chamæcyparis nootkatensis albo-picta Sudw.
Chamæcyparis nootkatensis aureo-viridis (Hort. Kew.) Sudw.
Chamæcyparis nootkatensis picta Sudw.

Chamæcyparis lawsoniana (Murr.) Parl. **Port Orford Cedar.**

RANGE.—Coast region from southwestern Oregon (Coos Bay) to California (Klamath River), extending inland about 40 miles.

NAMES IN USE.—Port Orford Cedar (Oreg., Cal.); Oregon Cedar (Oreg., Cal.); White Cedar (Oreg., Cal.); Ginger Pine (Cal.); Lawson's Cypress (Cal., Oreg.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Chamæcyparis lawsoniana erecta (Gord.) Sudw.
Chamæcyparis lawsoniana erecta viridis (Veitch) Beissn.
Chamæcyparis lawsoniana erecta glaucifolia Sudw.
Chamæcyparis lawsoniana erecta glaucescens Sudw.
Chamæcyparis lawsoniana pyramidalis leucophylla Sudw.
Chamæcyparis lawsoniana pyramidalis flaveola Sudw.
Chamæcyparis lawsoniana pyramidalis luteo-tenuis Sudw.
Chamæcyparis lawsoniana rosenthali Beissn.
Chamæcyparis lawsoniana worlei Beissn.
Chamæcyparis lawsoniana alumi Beissn.
Chamæcyparis lawsoniana monumentalis nova Beissn.
Chamæcyparis lawsoniana monumentalis albescens Sudw.
Chamæcyparis lawsoniana fraseri Beissn.
Chamæcyparis lawsoniana robusta Beissn.
Chamæcyparis lawsoniana robusta aurifolia Sudw.
Chamæcyparis lawsoniana robusta cinerea Sudw.
Chamæcyparis lawsoniana robusta argentifolia Sudw.
Chamæcyparis lawsoniana atroviridis Sudw.
Chamæcyparis lawsoniana cyanea Sudw.
Chamæcyparis lawsoniana cyanea pendens Sudw.
Chamæcyparis lawsoniana beissneriana Smith and Cie.
Chamæcyparis lawsoniana nivea Beissn.
Chamæcyparis lawsoniana lutea (Gord.) Beissn.
Chamæcyparis lawsoniana lutea flavescens (Gord.) Sudw.
Chamæcyparis lawsoniana aurea (Gord.) Beissn.
Chamæcyparis lawsoniana aurea magnifica (Beissn.) Sudw.
Chamæcyparis lawsoniana westermanni Beissn.
Chamæcyparis lawsoniana versicolor Beissn.
Chamæcyparis lawsoniana argenteo-variegata (Veitch) Beissn.
Chamæcyparis lawsoniana argenteo-variegata novicia Sudw.
Chamæcyparis lawsoniana aureo-variegata (Veitch) Beissn.

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Chamæcyparis lawsoniana aureo-spica Beissn.
Chamæcyparis lawsoniana albo-spica (Gord.) Beissn.
Chamæcyparis lawsoniana overeynderi Beissn.
Chamæcyparis lawsoniana nutans Sudw.
Chamæcyparis lawsoniana nutans vera (Beissn.) Sudw.
Chamæcyparis lawsoniana nutans alba (Gord.) Sudw.
Chamæcyparis lawsoniana filiformis (Veitch.) Beissn.
Chamæcyparis lawsoniana filiformis globosa Beissn.
Chamæcyparis lawsoniana intertexta (Veitch.) Beissn.
Chamæcyparis lawsoniana gracilis (Gord.) Beissn.
Chamæcyparis lawsoniana gracilis pusilla Sudw.
Chamæcyparis lawsoniana laxa Beissn.
Chamæcyparis lawsoniana crispa Beissn.
Chamæcyparis lawsoniana casuarinifolia Beissn.
Chamæcyparis lawsoniana tortuosa Beissn.
Chamæcyparis lawsoniana compacta recens Sudw.
Chamæcyparis lawsoniana fragrans (Gord.) Beissn.
Chamæcyparis lawsoniana fragrans argyropsis Sudw.
Chamæcyparis lawsoniana fragrans conica Beissn.
Chamæcyparis lawsoniana parva Sudw.
Chamæcyparis lawsoniana parva candida Sudw.
Chamæcyparis lawsoniana parva albo-variegata (Gord.) Sudw.
Chamæcyparis lawsoniana parva albo-spiciformis Sudw.
Chamæcyparis lawsoniana parva densa Sudw.
Chamæcyparis lawsoniana shawi Beissn.
Chamæcyparis lawsoniana minima (Gord.) Sudw.
Chamæcyparis lawsoniana argentea (Gord.) Beissn.
Chamæcyparis lawsoniana argentea depauperata Sudw.
Chamæcyparis lawsoniana argentea minuta Sudw.
Chamæcyparis lawsoniana argentea prostrata (Beissn.) Sudw.
Chamæcyparis lawsoniana forstekiana Beissn.
Chamæcyparis lawsoniana weisseana Mœll.
Chamæcyparis lawsoniana silver-queen Beissn.
Chamæcyparis lawsoniana amabilis (Hort. Kew.) Sudw.
Chamæcyparis lawsoniana bowleri (Hort. Kew.) Sudw.
Chamæcyparis lawsoniana californica (Hort. Kew.) Sudw.
Chamæcyparis lawsoniana darleyensis (Hort. Kew.) Sudw.

JUNIPERUS Linn.

Juniperus virginiana Linn. **Red Juniper.**

RANGE.—Nova Scotia and New Brunswick to Florida and west in Ontario (Georgian Bay) to Dakota, central Nebraska and Kansas, and Indian Territory. Actual range imperfectly known at present, the supposed Rocky Mountain and Western range being represented by a new, distinct species (*J. scopularum* Sarg.).

NAMES IN USE.—Red Cedar (N. H., Vt., Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Ky., Mo., Ill., Ind., Wis., Iowa, Mich., Minn., Ohio, Ont.); Cedar (Conn., Pa., N. J., S. C., Ky., Ill., Iowa, Ohio); Savin (Mass., R. I., N. Y., Pa., Minn.); Juniper (N. Y., Pa.); Juniper Bush (Minn.); Cedre (La.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Juniperus virginiana caroliniana (Marsh.) Willd.
Juniperus virginiana gracilis (Endl.) Sarg.
Juniperus virginiana pyramidiformis Sudw.
Juniperus virginiana pyramidiformis glaucifolia Sudw.

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Juniperus virginiana pyramidiformis viridifolia Sudw.
Juniperus virginiana cannarti (Koch.) Beissn.
Juniperus virginiana polymorpha Beissn.
Juniperus virginiana pendula Carr.
Juniperus virginiana smithi penduliformis Sudw.
Juniperus virginiana chamberlayni Carr.
Juniperus virginiana nutans Beissn.
Juniperus virginiana interrupta (Wend.) Beissn.
Juniperus virginiana dumosa Carr.
Juniperus virginiana pumila Gord.
Juniperus virginiana pumila nivea (Beissn.) Sudw.
Juniperus virginiana schotti Gord.
Juniperus virginiana tripartita Gord.
Juniperus virginiana tripartita aureo-versicolor Sudw.
Juniperus virginiana kosteriana Beissn.
Juniperus virginiana glaucescens Sudw.
Juniperus virginiana cinerascens Carr.
Juniperus virginiana plumosa alba (Carr.) Beissn.
Juniperus virginiana plumosa candida Sudw.
Juniperus virginiana albo-spica Beissn.
Juniperus virginiana albo-variegata Beissn.
Juniperus virginiana aureo-spica Beissn.
Juniperus virginiana aureo-variegata Veitch.
Juniperus virginiana aurea superba Sudw.
Juniperus virginiana elegantissima Beissn.
Juniperus virginiana horizontaliformis Sudw.
Juniperus virginiana triomphe d'angers Beissn.

Juniperus barbadensis Linn. **Southern Red Juniper.**

JUNIPERUS VIRGINIANA authors in part, not L.

RANGE.—South Atlantic and Gulf Coast region and southward through Florida. Range imperfectly known at present. Formerly not distinguished from the more northern true *J. virginiana*.

Juniperus occidentalis Hook. **Western Juniper.**

RANGE.—From western Idaho, eastern Oregon, on Cascade, Sierra Nevada Mountains to southern California (San Bernardino Mountains).

NAMES IN USE.—Juniper (Oreg., Cal., Colo., Utah, Nev., Mont., Idaho, N. Mex.); Cedar (Idaho, Mont.); Yellow Cedar (Colo., Mont.); Western Cedar (Idaho); Western Red Cedar; Western Juniper (Cal. lit.)

Juniperus scopulorum Sargent. **Rocky Mountain Juniper.**

JUNIPERUS VIRGINIANA authors in part, not L.

RANGE.—Nebraska and Dakota (Black Hills) to Montana, Idaho, northern Washington and British Columbia to Vancouver Island; Rocky Mountains from Montana to Arizona and Nevada. Range imperfectly known.

Juniperus monosperma[1] (Engelm.) Sarg. **One-seed Juniper.**

RANGE.—Eastern base Rocky Mountains of Colorado (Platte and Arkansas rivers) and southward into western Texas; southern Utah to central New Mexico and Arizona.

NAMES IN USE.—One-seeded Juniper; Naked-seeded Juniper (Cal. lit.)

[1] *Juniperus Knighti* Nelson, in Bot. Gaz., XXV, 198, f. 1, 2, 1898. Prof. Aven Nelson describes this species as a "scraggy shrub or small tree" common in the Red Desert region of Wyoming from the Seminole Mountains to the Green River. I have not examined specimens, but its affinities appear to be with *J. monosperma* and *J. scopulorum*.

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Juniperus sabinoides (H. B. K.) Sargent. **Mountain Juniper.**

RANGE.—Central Texas (Colorado River), southward and westward.

NAMES IN USE.—Juniper Cedar (Tex.); Mountain Cedar (Tex.); Juniper; Mountain Juniper; Rock Cedar (Tex.).

Juniperus californica Carr. **California Juniper.**

RANGE.—Central California (lower Sacramento River) and southward through California in coast ranges and in Sierra Nevada to Kernville and Lower California.

NAMES IN USE.—White Cedar; Juniper (Cal.); California Juniper (Cal. lit.); Sweet-fruited Juniper (Cal.); Sweet-berried Cedar.

Juniperus utahensis (Engelm.) Lemm. **Utah Juniper.**

RANGE.—Desert region from eastern Utah (Wasatch Mountains) to southeastern California, northern Arizona, and western Colorado.

NAMES IN USE.—Juniper (Utah); Western Red Cedar, Desert Juniper (Cal. lit.); Utah Juniper.

Juniperus pachyphlœa Torr. **Alligator Juniper.**

RANGE.—Southwestern Texas (Eagle and Limpia mountains), and westward on desert ranges of New Mexico and Arizona south of Colorado River plateau; mountains of northern Arizona; Mexico.

NAMES IN USE.—Juniper (Ariz., N. Mex.); Oak-barked Cedar (Ariz.); Alligator Juniper (Ariz.); Oakbark Juniper (Ariz.); Mountain Cedar (Tex.); Thick-barked Juniper (Cal. lit.); Checkered-barked Juniper (lit.).

Juniperus flaccida Schl. **Drooping Juniper.**

RANGE.—Southwestern Texas (Chisos Mountains); northeastern Mexico.

Juniperus communis Linn. **Dwarf Juniper.**

RANGE.—From Greenland to Alaska and in the east southward to Pennsylvania and northern Nebraska; in the Rocky Mountains to Texas, New Mexico, and Arizona; in the Pacific region to northern California; also in Old World.

VARIETIES DISTINGUISHED IN CULTIVATION.

Juniperus communis cracovia (Koch) Beissn.
Juniperus communis suecica (Mill.) Loud.
Juniperus communis hibernica (Lodd.) Gord.
Juniperus communis hibernica compressa Carr.
Juniperus communis oblonga (Bieb.) Loud.
Juniperus communis oblongo-pendula (Loud.) Carr.
Juniperus communis pendens Sudw.
Juniperus communis hemisphærica (Presl.) Parl.
Juniperus communis echinoformis (Knight) Beissn.
Juniperus communis variegata aurea Carr.
Juniperus communis sibirica (Burgsd.) Rydberg.
Juniperus communis argyrophylla Sudw.
Juniperus communis pygmæa (Koch) Sudw.

Family TAXACEÆ.

TUMION Raf.

Tumion taxifolium (Arn.) Greene. **Florida Torreya.**

TORREYA TAXIFOLIA Arn.

RANGE.—Western Florida (east bank of Apalachicola River from River Junction to Bristol, Gadsden County); very local.

NAMES IN USE.—Stinking Cedar (Fla.); Savin (Fla.); Torrey-tree (Fla.); Stinking Savin (Fla.); Fetid Yew (Eng. lit.).

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Tumion californicum (Torr.) Greene. **California Torreya.**

TORREYA CALIFORNICA Torr.

RANGE.—California (Mendocino County to Santa Cruz Mountains in Santa Clara County).

NAMES IN USE.—California Nutmeg (Cal.); Stinking Cedar; Yew (Idaho); California False Nutmeg (Cal. lit.); Coast Nutmeg (Cal. lit.).

TAXUS Linn.

Taxus brevifolia Nutt. **Pacific Yew.**

RANGE.—Pacific coast region from British Columbia (Queen Charlotte Island and Skeena River), and east to Selkirk Mountains; through western Washington and Oregon to California (coast ranges to Monterey Bay and western slopes of Sierra Nevada Mountains to Tulare County); mountains of eastern Washington and Oregon to Montana (western slopes of Rocky Mountains).

NAMES IN USE.—Yew (Cal., Idaho, Oreg.); Mountain Mahogany (Idaho); Western Yew (Cal.); Pacific Yew (Cal. lit.).

Taxus floridana Nutt. **Florida Yew.**

RANGE.—Western Florida (east bank of Apalachicola River, Gadsden County, from Aspalaga to the vicinity of Bristol); very local.

NAMES IN USE.—Yew (Fla.); Savin (Fla.).

MONOCOTYLEDONES.

Family PALMACEÆ.

THRINAX Linn. f.

Thrinax parviflora Swartz. **Silktop Palmetto.**

RANGE.—Southern Florida keys (from Bahia Honda Key to Longs Key); Bahamas.

NAMES IN USE.—Silktop Palmetto (Fla.); Silver Thatch (Fla.).

Thrinax microcarpa Sargent. **Silvertop Palmetto.**

RANGE.—Southern Florida (No-Name Key, Boca Chica Key, and Bahia Honda Key); also on Sugar Loaf Sound.

NAMES IN USE.—Silvertop Palmetto (Fla.); Prickley Thatch (Fla.); Brittle Thatch (Fla.).

SABAL Adans.

Sabal palmetto (Walt.) Rœm. & Sch. **Cabbage Palmetto.**

RANGE.—Coast region from North Carolina (Smiths Island, Cape Fear River) to Florida (Key Largo), and on the Gulf coast to the Apalachicola River.

NAMES IN USE.—Cabbage Palmetto (N. C., S. C.); Bank's Palmetto (N. C.); Palmetto (N. C., S. C.); Cabbage-tree (Miss., Fla.); Tree Palmetto (La.).

Sabal mexicana Mart. **Mexican Palmetto.**

RANGE.—Southwestern Texas (Rio Grande River from near Edinburg nearly to the Gulf of Mexico) and southward into Mexico (in coast region to southern part).

PSEUDOPHŒNIX Wendl.

Pseudophœnix Sargentii Wend. **Sargent Palm.**

RANGE.—Southern Florida keys (Elliotts Key and Key Largo); Bahamas.

NAMES IN USE.—Florida Palm (Fla.); Sargent's Palm.

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OREODOXA Willd.

Oreodoxa regia H. B. K. **Royal Palm.**

RANGE.—Florida (on Rogues River, 20 miles east of Caximbas Bay, Longs Key, Biscayne Bay, near mouth of Little River); West Indies, and Central America.

NAME IN USE.—Royal Palm (Fla.).

NEOWASHINGTONIA[1] Sudworth.

Neowashingtonia filamentosa (Wend.) Sudw. **Fanleaf Palm.**

WASHINGTONIA FILIFERA Wendl.

RANGE.—Southern California (San Bernardino Mountains to Colorado River).

NAMES IN USE.—Washington Palm (Cal.); California Fan Palm (Cal.); Arizona Palm (Cal.); Wild Date (Cal.); Fanleaf Palm (Cal.).

Family LILIACEÆ.

YUCCA Linn.

Yucca treculeana Carr. **Spanish Bayonet.**

RANGE.—Texas (Matagorda Bay) and southward into Mexico (Sierra Madre Mountains, Nuevo Leon), and along the Rio Grande to the eastern base of mountains of western Texas.

NAME IN USE.—Spanish Bayonet (Tex.).

Yucca arborescens (Torr.) Trelease. **Joshua-tree.**

YUCCA BREVIFOLIA Engelm.

RANGE.—Southwestern Utah to California (to the western and northern borders of the Mohave Desert).

NAMES IN USE.—Tree Yucca (Cal.); Yucca Cactus (Cal.); The Joshua (Utah); Joshua-tree (Utah, Ariz., N. Mex.).

Yucca brevifolia Torr. **Schott Yucca.**

RANGE.—Southern boundary of Arizona; Mexico.

Yucca constricta Buckl.

RANGE.—Southwestern Texas to southern Arizona; northern Mexico.

Yucca macrocarpa (Torr.) Coville. **Broadfruit Yucca.**

RANGE.—Southwestern Texas (desert plateau).

Yucca mohavensis Sargent. **Mohave Yucca.**

RANGE.—From northeastern Arizona and southern Nevada into California (across the Mohave Desert); and from southern base of San Bernardino Mountains to the coast and northward to Monterey Bay.

Yucca aloifolia Linn. **Aloë-leaf Yucca.**

RANGE.—Coast of North Carolina to Florida and Gulf coast to Louisiana.

NAME IN USE.—Spanish Bayonet.

Yucca gloriosa Linn. **Spanish Dagger.**

RANGE.—Coast of South Carolina and islands.

VARIETIES DISTINGUISHED IN CULTIVATION.

Yucca gloriosa plicata Carr.
Yucca gloriosa recurrifolia Engelm.

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[1] = Washingtonia Wendl. (1879), not of Winslow (1854) nor of Carr. (1867).

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DICOTYLEDONES.

Family JUGLANDACEÆ.

JUGLANS Linn.

Juglans cinerea Linn. **Butternut.**

RANGE.—Southern New Brunswick to Delaware and on the Appalachian Mountains to Georgia and Alabama (head waters of Black Warrior River, Winston County); westward through Ontario to Dakota, southeastern Nebraska, southern Missouri, and northeastern Arkansas.

NAMES IN USE.—Butternut (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., W. Va., N. C., S. C., Ala., Ark., Ky., Mo., Ill., Iowa, Ind., Mich., Minn., Wis., Kans., Nebr., Ohio, Ont.); White Walnut (Del., Pa., Va., W. Va., N. C., S. C., Ala., Ky., Mo., Ill., Ind., Wis., Iowa, Nebr., Minn., S. Dak.); Walnut (Minn.); Oil Nut (Me., N. H., S. C.); Buttnut (N. J.).

Juglans nigra Linn. **Black Walnut.**

RANGE.—Southern Ontario to Florida, central Alabama and Mississippi, and westward through southern Michigan, Wisconsin, and Minnesota to Nebraska, Kansas, and Texas (San Antonio River).

NAMES IN USE.—Black Walnut (N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Del., Pa., Va., W. Va., N. C., Ga., Fla., Ala., Miss., Tex., La., Ark., Ky., Mo., Ind., Ill., Kans., Nebr., Iowa, Mich., Ohio, Ont., S. Dak., Minn.); Walnut (N. Y., Del., W. Va., Fla., Ky., Mo., Ohio, Ind., Iowa); Walnut-tree (Pa., S. C.); Dent-soo-kwa-no-ne (=Round Nut, N. Y. Indians).

Juglans rupestris Engelm. **Mexican Walnut.**

RANGE.—Central Texas (Colorado, Llano, and Guadaloupe rivers) westward through southern New Mexico and Arizona and southward into Mexico.

NAMES IN USE.—Western Walnut (Tex.); Dwarf Walnut (Tex.); Little Walnut (Tex.); California Walnut (Ariz.); Walnut (N. Mex., Ariz.).

Juglans californica Wats. **California Walnut.**

RANGE.—California coast region (from the Sacramento River to the San Barnardino Mountains).

NAMES IN USE.—Walnut (Cal.); California Walnut (Cal.).

HICORIA Raf.

Hicoria pecan (Marsh.) Britton. **Pecan (Hickory).**

CARYA OLIVÆFORMIS Nutt.

RANGE.—Iowa (vicinity of Sabula) through southern Illinois and Indiana, western Kentucky and Tennessee to central Alabama and Mississippi, through Missouri and Arkansas to southeastern Arkansas, Indian Territory, western Louisiana and central Texas (Concho River); Mexico. Considerably extended by cultivation.

NAMES IN USE.—Pecan (Va., N. C., S. C., Ga. (cult.), Ala., Miss., Tex., La., Ark., Mo., Ill., Ind., Iowa, Kans.); Pecan Nut (La.); Pecanier (La.); Pecan-tree (La.).

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Hicoria pecan × minima Trelease.
Hicoria pecan × alba Trelease.
Hicoria pecan × laciniosa Trelease. **Nussbaum Hybrid (Hickory).**

Hicoria minima (Marsh.) Britton. **Bitternut (Hickory).**

CARYA AMARA Nutt.

RANGE.—Southern Maine and Ontario to Florida (Apalachicola River); west through central Michigan to Minnesota, Nebraska, Kansas, Indian Territory, and Texas (Trinity River).

NAMES IN USE.—Bitternut (N. H., Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Fla., Ala., Miss., La., Tex., Ark., Mo., Ill., Kans., Nebr., Mich., Minn., Ohio, Ont.); Swamp Hickory (Del., Pa., N. C., S. C., Miss., Tex., Ark., Iowa, Minn.); Pig Hickory (Ill.); Pig Nut (N. Y., W. Va., Mo., Ill., Iowa, Kans.); Bitter Pecan Tree, Pecanier Amer, Pecanier Sauvage (La.); Bitter Pig Nut (N. Y., N. J.); Hickory (Nebr.); Bitter Hickory (N. H.); Pig Walnut (N. H.); Bitter Walnut (Vt.); Noyer Dur (Quebec); White Hickory (Tex.)

Hicoria myristicæformis (Michx. f.)Britton. **Nutmeg Hickory.**

CARYA MYRISTICÆFORMIS Nutt.

RANGE.—Coast region of South Carolina (Goose Creek, Cooper River); central Alabama (between Tombigbee and Alabama rivers, from Demopolis to Gallion); central Mississippi (Mhoons Valley); southern Arkansas (Pine Bluff to Arkansas City, and in Red River bottoms above Fulton). Often cultivated in the middle Atlantic region.

NAMES IN USE.—Nutmeg Hickory (S. C., Ala.); Bitter Waternut (La.).

Hicoria aquatica (Michx. f.) Britton. **Water Hickory.**

CARYA AQUATICA Nutt.

RANGE.—Coast region Virginia (Mobjack Bay) to Florida (Cape Malabar and Coosa), and in the Gulf region to Texas (Brazos River) extending northward in western Louisiana to northeastern Arkansas, eastern Mississippi and southern Illinois (Gallatin County, near Equality).

NAMES IN USE.—Water Hickory (N. C., Fla., Ala., Miss., La., Tex., Mo.); Swamp Hickory (S. C., Fla., Miss., La.); Bitter Pecan (Miss., La., Tex.); Water Bitternut (S. C., Tenn.).

Hicoria ovata (Mill.) Britton. **Shagbark (Hickory).**

CARYA ALBA Nutt.

RANGE.—Southern Maine and Quebec (near Montreal) to Delaware and along the Appalachian Mountains to Florida, northern Alabama and Mississippi; west through southern Michigan to central Minnesota and northeastern Nebraska, central Kansas, Indian Territory, and eastern Texas.

NAMES IN USE.—Shellbark Hickory (Vt., N. H., Mass., R. I., N. Y., Pa., Del., Va., W. Va., N. C., S. C., Ga., Ala., Miss., La., Tex., Ark., Ky., Mo., Ind., Ill., Wis., Iowa, Kans., Neb., Ohio, Ont., Mich.); Shagbark Hickory (Vt., N. H., Mass., R. I., Conn., N. Y., N. J., Pa., Del., S. C., Ala., Miss., Tex., Ark., Mo., Ill., Wis., Mich., Minn., Kans., Neb., Iowa); Shellbark (R. I., N. Y., Pa., N C.); Upland Hickory (Ill.); Hickory (Vt., Ohio); Scalybark Hickory (W. Va., S. C., Ala.); Shagbark (R. I., Ohio);

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Shellbark-tree (Del.); White Walnut (N. J.); Walnut (Vt., N. Y.); White Hickory (Iowa, Ark.); Shagbark Walnut (Vt.); Sweet Walnut (Vt.); Redheart Hickory (Miss.).

Hicoria laciniosa (Michx. f.) Sargent. **Shellbark (Hickory).**

CARYA SULCATA Nutt.

RANGE.—Iowa (vicinity of Muscatine) through Missouri, Arkansas, eastern Kansas, and Indian Territory (near Ouachita), southern Illinois and Indiana to middle Tennessee, western and central New York and eastern Pennsylvania.

NAMES IN USE.—Big Shellbark (R. I., Pa., W. Va., Ky., Mo., Ill., Kans.); Bottom Shellbark (Ill.); Western Shellbark, Shellbark (R. I., Ky.,) Thick Shellbark (S. C., Tenn., Ind.); Thick Shellbark Hickory (N. C., Ark.); King Nut (Tenn.).

Hicoria alba (Linn.) Britton. **Mocker Nut (Hickory).**

CARYA TOMENTOSA Nutt.

RANGE.—Ontario to Florida (Cape Canaveral and Tampa Bay) and west to Missouri, eastern Kansas, Indian Territory and Texas (Brazos River).

NAMES IN USE.—Mocker Nut (Mass., R. I., N. Y., N. J., Del., Ala., Miss., La., Tex., Ark., Ill., Iowa, Kans.); Whiteheart Hickory (R. I., N. Y., Pa., Del., N. C., Tex., Ill., Ont., Iowa, Kans., Minn., Nebr.); Bullnut (N. Y., Fla., Miss., Tex., Mo., Ohio, Ill., Minn.); Black Hickory (Tex., Miss., La., Mo.); Big-bud, Red Hickory (Fla.); Hickory (Ala., Tex.); Hardbark Hickory (Ill.); Hickory (Pa., S. C., Nebr.); Common Hickory (N. C.); White Hickory (Pa., S. C.); Hickory Nut (Ky.); Big Hickory Nut (W. Va.); Hog Nut (Del.).

Hicoria glabra (Mill.) Britton. **Pignut (Hickory).**

CARYA PORCINA Nutt.

RANGE.—Southern Maine and southern Ontario to Florida (Indian River and Peace Creek); west through southern Michigan to southeastern Nebraska, eastern Kansas, Indian Territory and eastern Texas (Nueces River).

NAMES IN USE.—Pignut (N. H., Vt., Mass., Conn., R. I., N. Y., N. J., Pa., Del., W. Va., N. C., S. C., Fla., Ala., Miss., La., Tex., Ark., Ky., Mo., Ill., Ind., Wis., Iowa, Kans., Nebr., Minn., Ohio, Ont.); Bitternut (Ark., Ill., Iowa, Wis.); Black Hickory (Miss., La., Ark., Mo., Ind., Iowa); Broom Hickory (Mo.); Brown Hickory (Del., Miss., Tex., Tenn., Minn.); Hard-shell (W. V.); Red Hickory (Del.); Switch-bud Hickory (Ala.); White Hickory (N. H., Iowa).

Hicoria odorata (Marsh.) Sargent. **Small Pignut (Hickory).**

CARYA MICROCARPA Nutt.

RANGE.—Eastern Massachusetts, Connecticut, eastern and central New York, eastern Pennsylvania, Delaware, District of Columbia, Maryland (Montgomery County), central Michigan, southern Illinois, Indiana, and Missouri.

NAMES IN USE.—Small Pignut (Md.); Little Pignut (Md.); Little Shagbark (Md.).

Hicoria villosa (Sarg.) Ashe. **Pale-leaf Hickory.**

HICORIA GLABRA VILLOSA Sarg.

HICORIA PALLIDA Ashe.

RANGE.—Missouri (Allentown); middle Tennessee and northern Alabama to Georgia and southern Virginia. Distribution insufficiently known.

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Family MYRICACEÆ.

MYRICA Linn.

Myrica cerifera Linn. **Wax Myrtle.**

RANGE.—Southern Maryland to southern Florida and west in the Gulf States to Texas (Rockport, Arkansas Bay); northward west of Mississippi River to Arkansas (Washita River). In the Bahamas, Bermuda, West Indies.

NAMES IN USE.—Wax Myrtle (R. I., N. J., Del., N. C., S. C., Ala., Fla.); Bayberry (Mass., R. I., N. J., N. Y., Pa., Del., N. C., S. C., Ala., Fla.); Waxberry (R. I., Pa., S. C.); Cirier (La.); Candleberry (Fla.); Myrtle (Fla.); Myrtletree (Fla.); Puckerbush (Fla.).

Myrica inodora Bartr. **Odorless Myrtle.**

RANGE.—Near Apalachicola, Fla.; Mobile and Stockton, Ala., and Poplarville, Miss. Rare.

Myrica californica Cham. **California Wax Myrtle.**

RANGE.—Pacific coast region from Puget Sound to California (Santa Monica).

NAMES IN USE.—California Bayberry; Myrtle; Bayberry (Cal.); California Myrtle (Cal.); Wax Myrtle (Cal.).

Family LEITNERIACEÆ.

LEITNERIA Chapm.

Leitneria floridana Chapm. **Corkwood.**

RANGE.—Western Florida (swamp near Apalachicola); Missouri (Butler and Duncan counties); Arkansas (near Varner). Very local, and range imperfectly understood.

Family SALICACEÆ.

SALIX Linn.

Salix nigra Marsh. **Black Willow.**

RANGE.—New Brunswick to southern Florida and west to eastern Dakota, Nebraska, Kansas, Indian Territory, southern Arizona, and south into Mexico. In California (from the Sierra Nevadas to Colusa County, and from Sacramento River to Arizona).

NAMES IN USE.—Black Willow (N. H., Vt., R. I., N. Y., Pa., Del., S. C., Fla., Ala., Miss., La., Tex., Ariz., Cal., N. Mex., Utah, Ill., Wis., Mich., Minn., Nebr., Kan., Ohio, Ont., N. Dak.); Swamp Willow (N. C., S. C.); Willow (N. Y., Pa., N. C., S. C., Miss., Tex., Cal., Ky., Mo., Nebr.).

Salix nigra falcata (Pursh) Torr. **Crescentleaf Willow**

Salix nigra × amygdaloides Glatf.

Salix nigra × alba Bebb.

Salix wardi Bebb. **Ward Willow.**

RANGE.—Virginia (Potomac River near Washington, D. C.), Kentucky (Ohio River), central Tennessee, Illinois (Horse Shoe Lake, near Venice), southern Missouri, Indian Territory. Distribution insufficiently known.

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Salix occidentalis longipes (Anderss.) Bebb. **Longstalk Willow.**

RANGE.—Florida (Jacksonville) and westward through Texas to New Mexico, Arizona, and the southern Sierra Nevadas, California. Also in northern Mexico.

Salix amygdaloides Anderss. **Almondleaf Willow.**

RANGE.—Quebec (near Montreal) and New York (Cayuga County) to the upper Saskatchewan; southward to Ohio and Missouri, and westward in the Plains region to the Rocky Mountains, where it ranges from southwestern Texas to Oregon, Washington, British Columbia.

NAMES IN USE.—Willow (Nev., Oreg., Colo., Utah, Mont.); Black Willow (Mo., Idaho); Common Willow (Mont.).

Salix lævigata Bebb. **Smoothleaf Willow.**

RANGE.—California (Siskiyou County to the southern boundary of the State).

NAMES IN USE.—Willow (Cal.); Black Willow.

Salix lævigata angustifolia Bebb. **Narrowleaf Willow.**

Salix lævigata congesta Bebb.

Salix lasiandra Benth. **Western Black Willow.**

RANGE.—California (west of the Sierra Nevada); western Oregon, Washington, and southern British Columbia (Selkirk Mountains).

NAMES IN USE.—Willow (Cal., Oreg.); Black Willow.

Salix lasiandra lyalli Sargent. **Lyall Willow.**

RANGE.—Western Oregon, Washington, and southern British Columbia.

Salix lasiandra caudata (Nutt.) Sudworth.

RANGE.—Northern California (Sierra Nevada) to northern Montana, Colorado, and northern New Mexico.

Salix bonplandiana H. B. K. **Bonpland Willow.**

RANGE.—Arizona (Sabino Canyon and Santa Catalina mountains); central and southern Mexico.

Salix lucida Muehl. **Glossyleaf Willow.**

RANGE.—Newfoundland (Exploits River) to Hudson Bay and northwestward to Great Bear Lake, Mackenzie River, and to the Rocky Mountains; southward to Pennsylvania and west to eastern Nebraska.

Salix fluviatilis Nutt. **Longleaf Willow.**

SALIX LONGIFOLIA Muehl.

RANGE.—Quebec (Lake St. John and Island of Orleans) and southward through western New England to the Potomac River; northwestward to the Arctic Circle (valley of Mackenzie River) and British Columbia and California; southward in the Mississippi River basin to northern Mexico and Lower California.

NAMES IN USE.—Sandbar Willow (R. I., Miss., Cal., Kans., Nebr., Minn., S. Dak., Wis., Ont.); Longleaf Willow (Ala., Kans., Mich.); Long-leaved Willow (Tenn., Minn., Nebr., Colo., Cal., Idaho, Wash.); Narrow-leaved Willow (Nebr.); Shrub Willow (Nebr.); White Willow (Mo.); Red Willow (Mont.); Osier Willow (Mont.); Willow (Vt., N. Y., Ky., Ind., Miss., Tex., Cal., Nev., Utah, Mont.).

Salix fluviatilis exigua (Nutt.) Sargent.

RANGE.—Western Texas to northern California.

Salix fluviatilis argyrophylla (Nutt.) Sargent.

RANGE.—Western Texas to northern California.

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Salix sessilifolia Nutt. **Silverleaf Willow.**

RANGE.—From Puget Sound to southwestern California, ranging through western Washington and Oregon, western slopes of California, Sierra and coast ranges.

NAMES IN USE.—Willow (Cal., Oreg.); Silver Willow (Cal.).

Salix taxifolia H. B. K. **Yewleaf Willow.**

RANGE.—Texas (near El Paso), southern Arizona (near Tucson and on mountain streams); Mexico to Guatemala and Lower California.

Salix bebbiana Sargent. **Bebb Willow.**

SALIX ROSTRATA Rich.

RANGE.—St. Lawrence River (lower valley) to Hudson Bay and northwestward to the Arctic Circle (Mackenzie River) and British Columbia (coast ranges); south to Pennsylvania and west to Minnesota; western Idaho and northern Montana to Dakota (Black Hills); western Nebraska, through Colorado to northern Arizona.

Salix discolor Muehl. **Glaucous Willow.**

RANGE.—Nova Scotia to Manitoba and south to Delaware; southern Indiana and Illinois and northeastern Missouri.

NAMES IN USE.—Glaucous Willow (R. I., N. Y., Pa., Miss., Mich., Minn., Ont.); Pussy Willow (N. J., Minn.); Silver Willow; Swamp Willow (N. J.); Willow (Vt., N. Y., Mo.).

Salix discolor eriocephala (Michx.) Anderss.

Salix discolor prinoides (Pursh) Anderss.

Salix cordata mackenzieana Hook. **Mackenzie Willow.**

RANGE.—Great Slave Lake and southward (through region along eastern base of Rocky Mountains) to northern Idaho and California (Lake County).

Salix cordata lutea (Nutt.) Bebb. **Yellow Willow.**

RANGE.—Southern Assiniboia and northern Montana.

Salix missouriensis Bebb. **Missouri Willow.**

SALIX CORDATA var. VESTITA Sargent, not Pursh.

RANGE.—Western Missouri (Courtney, Jackson County, Fort Osage, and near Watson, Atchison County).

Salix lasiolepis Benth. **Bigelow Willow.**

RANGE.—Northern California (Klamath River) and southward through the western part of the State to Lower California and southern Arizona (Tanners Canyon on Huachuca Mountains, and White River Canyon on Chericahua Mountains).

NAME IN USE.—Willow (Cal., Nev.).

Salix nuttallii Sargent. **Nuttall Willow.**

SALIX FLAVESCENS Nutt.

RANGE.—From southern Assiniboia and British Columbia (Columbia River near Donald) southward in the Rocky Mountain region to northern New Mexico and Arizona (San Francisco Mountain); California (Sierra Nevada to the San Bernardino Mountains).

NAMES IN USE.—Mountain Willow (Mont.); Willow (Oreg., Utah); Black Willow.

Salix nuttallii brachystachys (Benth.) Sargent.

RANGE.—Western Washington and Oregon, and California coast region.

Salix piperi Bebb. **Piper Willow.**

RANGE.—Western Washington.

Salix hookeriana Barratt. **Hooker Willow.**

RANGE.—Vancouver Island to southern Oregon—coast region.

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Salix alba Linn. **White Willow.**

RANGE.—Europe. Widely naturalized in the United States.

Salix alba × lucida Bebb.

Salix fragilis Linn. **Crack Willow.**

RANGE.—Europe. Naturalized in eastern North America.

Salix babylonica Linn. **Weeping Willow.**

RANGE.—Europe. Naturalized in few localities in Atlantic region.

Salix sitchensis Sans. **Silky Willow.**

RANGE.—Alaska to southern California (Santa Barbara)—coast region.

NAMES IN USE.—Silky Willow (Oreg.); Sitka Willow (Germ. lit.).

POPULUS Linn.

Populus tremuloides Michx. **Aspen.**

RANGE.—Southern Labrador to Hudson Bay (southern shores) and northwestward to the Mackenzie River (near mouth) and Alaska (Yukon River); southward to Pennsylvania (mountains), northeastern Missouri, southern Nebraska, and throughout the western mountains to northern New Mexico and Arizona and central California; Lower California (San Pedro Matir Mountains) and Mexico (mountains of Chihuahua).

NAMES IN USE.—Aspen (N. H., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Ill., Ind., Wis., Mich., Minn., N. Dak., Nebr., Ohio, Ont., Oreg., Utah, Idaho, Nev., Mont., Colo., Cal.); Quaking Asp (N. Y., Pa., Del., Cal., N. Mex., Idaho, Colo., Ariz., Ill., Iowa, Minn., Mont., Nebr., Utah, Oreg., Nev.); Mountain Asp (Mont.); American Aspen (Vt.); Aspen Leaf (Pa.); White Poplar (Mass.); Trembling Poplar (Minn., Colo.); American Poplar (Minn., Colo.); Poplar (Vt., N. Y., Ill., Ind., Minn., Mont.); Popple (Wis., Iowa, Mont.); Tremble (Quebec); Trembling Aspen (Iowa); Aspen Poplar (Cal., Mont.).

VARIETY DISTINGUISHED IN CULTIVATION.

Populus tremuloides pendens Sudw.

Populus grandidentata Michx. **Largetooth Aspen.**

RANGE.—Nova Scotia through New Brunswick, southern Quebec, and Ontario to northern Minnesota; southward to Delaware (and along the Allegheny Mountains to North Carolina, central Kentucky, and Tennessee), southern Indiana, and Illinois.

NAMES IN USE.—Large-toothed Aspen (N. J., Pa., Del., S. C., Mich., Minn.); Poplar (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., W. Va., N. C., S. C., Ga., Ill., Ohio); Large-toothed Poplar (N. C.); Large Poplar (Tenn.); White Poplar (Mass.); Popple (Me.); Large American Aspen (Ala.).

VARIETY DISTINGUISHED IN CULTIVATION.

Populus grandidentata penduliformis Sudw. **Weeping Largetooth Aspen.**

Populus heterophylla Linn. **Swamp Cottonwood.**

RANGE.—From Connecticut (North Gilford) and Long Island (Northport) southward near the coast to southern Georgia; westward in the Gulf region to western Louisiana and through Arkansas to southeastern Missouri, western Kentucky, and Tennessee, and southern Illinois and Indiana.

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NAMES IN USE.—River Cottonwood (R. I., Miss., La., Ohio); Swamp Cottonwond (S. C., Miss., Del.); Black Cottonwood (Ala.); Cottonwood (N. Y., Va., N. C., S. C., Miss.); Downy Poplar (Tenn., Ala., Ark.); Swamp Poplar (N. J.); Cotton-tree (N. C.); Liar (La.); Langues de femmes (La.).

Populus balsamifera Linn. **Balm of Gilead.**

RANGE.—Coast of Alaska and valley of Mackenzie River (latitude 60°) to Hudson Bay and Newfoundland; southward to northern New England and New York (Taughannock Falls, Cayuga Lake), central Michigan and Minnesota, Dakota (Black Hills), northwestern Nebraska, northern Montana, Idaho, Oregon, and Nevada.

NAMES IN USE.—Balsam (N. H., N. Y., Wis., Mich., Minn., Nebr., Mont., Ohio, Ont.); Balm of Gilead (Me., N. H., Vt., Mass., R. I., Conn., N. Y., Mich., Nebr., Minn., N. Dak., Ont.); Cottonwood (Idaho); Poplar (Wis., Minn.); Balsam Poplar (N. H., Vt., Nebr., Minn.); Tacamahac (Minn.); Baumier (Quebec); Rough-barked Poplar (Hudson Bay region).

Populus balsamifera candicans (Ait.) Gray.

Hairy Balm of Gilead.

NAMES IN USE.—Balm of Gilead (Me., N. H., Vt., Mass., N. Dak., Minn., Ont.); Balsam (Mich., Md., and Va. Cult.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Populus balsamifera intermedia Loud.
Populus balsamifera viminalis Loud.
Populus balsamifera latifolia (Mœnch.) Loud.

Populus acuminata Rydberg. **Lanceleaf Cottonwood.**

RANGE.—South Dakota (Black Hills) and western Nebraska to the eastern base of the Rocky Mountains of Colorado. Range insufficiently understood.

Populus angustifolia James. **Narrowleaf Cottonwood.**

RANGE.—From southwestern Assiniboia (Milk and Belly rivers) to Dakota (Black Hills) and northwestern Nebraska; southward in the mountain regions to central Nevada, New Mexico (Mogollon Mountains), central Arizona.

NAMES IN USE.—Black Cottonwood (N. Mex., Utah, Colo.); Narrow-leaved Cottonwood (Colo., Utah); Narrow-leaved Poplar (Mont., Utah); Balsam (Mont.); Cottonwood (Idaho, Colo.); Willow Cottonwood (Idaho); Bitter Cottonwood (Idaho); Willow-leaved Cottonwood (Mont.).

Populus trichocarpa Torr. & Gr. **Black Cottonwood.**

RANGE.—From southern Alaska through western British Columbia (east to Columbia River), western Washington, Oregon, California (and islands) to the southern slope of the San Bernardino Mountains. Northern range insufficiently understood.

NAMES IN USE.—Black Cottonwood; Cottonwood (Oreg., Cal.); Balsam Cottonwood; Balm (Oreg.); Balm Cottonwood (Cal.).

Populus deltoides Marsh. **(Common) Cottonwood.**

POPULUS MONILIFERA Ait.

RANGE.—From Quebec (Lower Maurice River) and Vermont (Lake Champlain) through western New England and New York, Pennsylvania (west of Alleghenies), Maryland, and Atlantic States to western Florida and west to the Rocky Mountains from southern Alberta to northern New Mexico.

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NAMES IN USE.—Cottonwood (N. H., Vt., Mass., R. I., N. Y., N. J., W. Va., N. C., Ala., Fla., Miss., La., Tex., Cal., Ky., Mo., Ill., Wis., Kans., Nebr., Iowa, Minn., Mich., Ohio, Ont., Colo., Mont., N. Dak., S. Dak.); Big Cottonwood (Miss., Nebr.); Yellow Cottonwood (Ark., Iowa, Nebr.); Cotton-tree (N. Y.); Carolina Poplar (Pa., Miss., La., N. Mex.; Ind., Ohio); Necklace Poplar (Tex., Colo.); Vermont Poplar (Vt.); Whitewood (Iowa); Broad-leaved Cottonwood (Colo.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Populus deltoides aurea (Nichol.) Sudw.	**Goldenleaf Cottonwood.**
Populus deltoides erecta (Selys) Sudw.	**Erect Cottonwood.**
Populus deltoides crispa (Dipp.) Sudw.	**Crisp-leaf Cottonwood.**

Populus fremontii[1] Wats. **Fremont Cottonwood.**

RANGE.—Western California (Sacramento River) to Lower California; eastward to central Nevada, southern Utah and Colorado, western Texas and northern Mexico.

NAMES IN USE.—Cottonwood (Cal., Utah); White Cottonwood (N. Mex.).

Populus alba Linn. **White Poplar.**

RANGE.—Europe. Widely naturalized in the United States by cultivation.

VARIETIES DISTINGUISHED IN CULTIVATION.

Populus alba nivea (Willd.) Loud.	**Snowy Poplar.**
Populus alba canescens (Smith) Loud.	**Silver Poplar.**
Populus alba canescens umbraculifera Sudw.	**Weeping Silver Poplar.**
Populus alba bolleana Louche.	**Bolle Poplar.**
Populus alba nutans Sudw.	**Weeping White Poplar.**
Populus alba globosa Dipp.	**Roundtop Poplar.**

Populus nigra Linn. **Black Poplar.**

RANGE.—Europe. Naturalized in several localities in the East.

VARIETIES DISTINGUISHED IN CULTIVATION.

Populus nigra italica Du Roi.	**Lombardy Poplar.**
Populus nigra elegans Bailey.	

Family BETULACEÆ.

BETULA Linn.

Betula populifolia Marsh. **White Birch.**

RANGE.—From Nova Scotia, New Brunswick, and Lower St. Lawrence River southward (mostly in coast region) to Delaware (Newcastle County) and westward through northern New England and New York to Lake Ontario (southern shores).

NAMES IN USE.—White Birch (Vt., Mass., R. I., Conn., N. Y., N. J., Penn., Del., Ont.); Gray Birch (Me., R. I., Mass.); Oldfield Birch; Poverty Birch (Me.); Poplar-leaved Birch; Small White Birch (Vt.).

Betula populifolia × papyrifera Sargent.

RANGE.—Massachusetts and New Hampshire—local.

[1] Includes *P. Fremontii* var. *Wislizeni* Wats.

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VARIETY DISTINGUISHED IN CULTIVATION.

Betula populifolia purpurea Hort. Am.

Betula papyrifera Marsh. **Paper Birch.**

RANGE.—From Labrador to Hudson Bay (southern shores), Great Bear Lake, Yukon River and coast of Alaska; southward to New York (Long Island) and northern Pennsylvania, central Michigan, and Minnesota, northern Nebraska (bluffs of Niobrara River), Dakota (Black Hills), northern Montana, and northwestern Washington (near Seattle).

NAMES IN USE.—Paper Birch (N. H., Vt., Mass., R. I., Conn., N. Y., Wis., Mich., Minn., Ont.); Canoe Birch (Me., Vt., N. H., R. I., Mass., N. Y., Pa., Wis., Mich., Minn., Ont.); White Birch (Me., N. H., Vt., R. I., N. Y., N. J., Wis., Minn., Mich., Nebr., Ont.); Silver Birch (Minn.); Large White Birch (Vt.); Boleau (Quebec).

Betula papyrifera minor (Tuck.) Wats. & Coult. **Alpine Paper Birch.**

RANGE.—Northern New England (mountains).

Betula occidentalis Hook. **Western Birch.**

RANGE.—From British Columbia (upper Fraser and Pease rivers) south to California (valleys of Mount Shasta and eastern slopes of the northern Sierra Nevada); eastward in British America to eastern Alberta and along the Saskatchewan River to Edmonton, and south in the Rocky Mountains and other interior ranges to Nevada, Utah, northern New Mexico; east to Dakota (Black Hills), northwestern Nebraska, and eastern base of Rockies in Colorado.

NAMES IN USE.—Black Birch (Cal., Colo., Mont., Utah); Cañon Birch (Utah); Sweet Birch (Idaho); Cherry Birch (Idaho); Gray Birch (Mont.); Water Birch (Colo.); Western Birch.

Betula nigra Linn. **River Birch.**

RANGE.—Massachusetts (Nashua River near Fitchburg; Merrimac River near Lawrence and Lowell; Spicket and Shawsheen rivers); New York (Wading River, Long Island) and southward east of the Alleghenies to western Florida; west in Gulf States to Texas (Trinity River) and north through Mississippi to Indian Territory, eastern Kansas, eastern Nebraska (Missouri River bottoms), central Minnesota, southern Wisconsin (near Madison), and Ohio.

NAMES IN USE.—Red Birch (Mass., R. I., N. Y., N. J., Pa., Del., N. C., S. C., La., Mo., Wis., Kans., Nebr., Ohio); River Birch (Mass., R. I., N. J., Del., Pa., W. Va., Ala., Miss., Tex., Mo., Ill., Wis., Ohio); Water Birch (W. Va., Kans.); Blue Birch (Ark.); Black Birch (Fla., Tenn., Tex.); Birch (N. C., S. C., Miss., La.).

Betula lutea Michx. f. **Yellow Birch.**

RANGE.—From Newfoundland and along the northern shores of St. Lawrence Gulf to Abittibi Lake and Rainy River; southward to northern Minnesota and through the Northern States to eastern Tennessee, North Carolina, and Delaware.

NAMES IN USE.—Yellow Birch (Me., N. H., Vt., Mass., Conn., R. I., N. Y., N. J., Pa., N. C., S. C., Ill., Mich., Minn., N. Dak., Ont.); Gray Birch (Vt., R. I., Pa., Mich., Minn.); Swamp Birch (Minn.); Silver Birch (N. H.); Merisier (Quebec); Merisier Rouge (Quebec).

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Betula lenta Linn. **Sweet Birch.**

RANGE.—Newfoundland to northwestern Ontario and southward to southern Indiana and Illinois, and along the Allegheny Mountains to central Kentucky, Tennessee, and western Florida.

NAMES IN USE.—Sweet Birch (Me., N. H., Vt., Mass., R. I., N. Y., N. J., Pa., Del., S. C., Mich., Minn.); Birch (N. C.); Black Birch (N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., W. Va., Ga., Ill., Ind., Mich., Ohio); Cherry Birch (N. H., R. I., N. Y., Pa., Va., Del., N. C., S. C., Fla., Wis., Mich., Ont.); River Birch (Minn.); Mahogany Birch (N. C., S. C.); Mountain Mahogany (S. C.).

ALNUS Ehrh.

Alnus maritima (Marsh.) Muehl. **Seaside Alder.**

RANGE.—Southern part of the peninsula of Delaware and Maryland (Nanticoke River near Seaford, Del.; Wicomico River near Salisbury, Md.); Indian Territory (Red River).

NAMES IN USE.—Seaside Alder (Del.); Alder (Del.).

Alnus acuminata H. B. K. **Lanceleaf Alder.**

ALNUS OBLONGIFOLIA Torr.

RANGE.—Southern New Mexico and Arizona (canyons of mountains); southern Mexico, Central America to Peru (Andes).

Alnus rhombifolia Nutt. **White Alder.**

RANGE.—From northern Idaho to the eastern slope of the Cascade Mountains of Washington and southeastern Oregon, and southward through California (coast ranges, western slopes Sierra Nevada, San Bernardino, San Jacinto, and Cuayamaca mountains).

NAMES IN USE.—Alder (Cal., Oreg.); Western or California Alder (Idaho); Mountain Alder.

Alnus tenuifolia Nutt. **Paperleaf Alder.**

ALNUS INCANA var. VIRESCENS Wats.

RANGE.—From British Columbia (Kicking Horse Lake to Lower Fraser River) through the Rocky Mountains to northern New Mexico, to southern California (Sierra Nevada), and Lower California.

Alnus oregona Nutt. **Red Alder.**

RANGE.—From Sitka (through islands and coast ranges of British Columbia, western Washington, and Oregon) to California (coast ranges to Santa Inez Mountains, near Santa Barbara).

NAMES IN USE.—Alder (Cal., Oreg.); Red Alder (Cal., Oreg.); Western or Red Alder.

Alnus glutinosa (Linn.) Gærtn. **European Alder.**

RANGE.—Europe and northern Asia, but naturalized in few localities in the United States.

VARIETIES DISTINGUISHED IN CULTIVATION.

Alnus glutinosa quercifolia Willd.
Alnus glutinosa laciniata (Ehr.) Willd.
Alnus glutinosa incisa Willd.
Alnus glutinosa aurea (Koch) Nichol.

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OSTRYA Scop.

Ostrya virginiana[1] (Mill.) Koch. **Hornbeam.**

RANGE.—From Nova Scotia and Cape Brenton Island and New Brunswick (Bay of Chaleur and along St. Lawrence and Lower Ottawa rivers and over northern shores of Lake Huron) to western Ontario, northern Minnesota, Dakota (Black Hills), eastern and northern Nebraska, eastern Kansas; south to northern Florida (near Jacksonville) and eastern Texas.

NAMES IN USE.—Hop Hornbeam (Vt., R. I., Mass., N. Y., N. J., Pa., Del., N. C., S. C., Ala., Tex., Ark., Ohio, Ill., Ind., Wis., Minn., Kans., Nebr., S. Dak.); Ironwood (R. I., N. Y., N. J., Pa., Del., W. Va., N. C., S. C., Ala., Tex., Ark., Ky., Ohio, Ind., Ill., Iowa, Mich., Wis., Minn., S. Dak., Nebr., Ont.); Leverwood (Vt., Mass., R. I., N. Y., Pa., Kans.); Hornbeam (R. I., N. Y., Fla., S. C., La.); Hardhack (Vt.).

Ostrya knowltoni Coville. **Knowlton Hornbeam.**

RANGE.—Arizona (canyon of the Colorado River 70 miles north of Flagstaff, where Tolfree (P. O.) is located. Abundant along the trail leading to the bottom of the canyon, at 6,000 to 7,000 feet elevation). Range insufficiently understood; southern Mexico and Central America (mountains).

CARPINUS Linn.

Carpinus caroliniana Walt. **Blue Beech.**

RANGE.—Southern and western Quebec to Georgian Bay (north shores) and southward to Florida (Cape Malabar and Tampa Bay); west in United States to northern Minnesota, eastern Nebraska and Kansas, Indian Territory and Texas (Trinity River).

NAMES IN USE.—Blue Beach (N. H., Vt., R. I., N. Y., Pa., Miss., Tex., Ky., Mich., Iowa, Nebr., Minn., Ohio, Ont.); Water Beech (R. I., N. Y., Pa., Del., W. Va., Ohio, Ill., Ind., Mich., Minn., Nebr., Kans.); Hornbeam (Me., N. H., Mass., Conn., R. I., N. Y., N. J., Pa., Del., N. C., S. C., Ala., Tex., Ky., Ill., Kans., Minn.); Ironwood (Me., Vt., Mass., R. I., N. Y., N. J., Pa., Del., N. C., S. C., Fla., Ala., La., Tex., Mo., Wis., Ill., Iowa, Kans., Minn., Ohio, Nova Scotia); O-tan-tahr-te-weh = "A lean tree" (Indians, N. Y.).

Family FAGACEÆ.

FAGUS Linn.

Fagus atropunicea (Marsh.) Sudworth. **Beech.**

FAGUS FERRUGINEA Ait.

RANGE.—Nova Scotia to Lake Huron (north shores) and northern Wisconsin; south to western Florida and west to southeastern Missouri and Texas (Trinity River).

NAMES IN USE.—Beech (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex., Ark., Ky., Mo., Ohio, Ill., Ind., Mich., Nebr., Minn., Ont.); Red Beech (Me., Vt., Ky., Ohio); White Beech (Me., Ohio, Mich.); Ridge Beech (Ark.).

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[1] The Ostrya reported from southern Mexico and Guatemala and referred to this species is probably *O. knowltoni*. I have not seen specimens of the Mexican plant.

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CASTANOPSIS Spach.

Castanopsis chrysophylla (Hook.) de C. **Goldenleaf Chinquapin.**

RANGE.—Pacific coast region from the Columbia River (along western slopes of Cascade Mountains and Sierra Nevada) to southern California (San Jacinto Mountains).

NAMES IN USE.—Chinquapin (Cal., Oreg.); Chestnut (Cal.); Western Chinquapin.

CASTANEA Adans.

Castanea pumila (Linn.) Mill. **Chinquapin.**

RANGE.—From southern Pennsylvania (Adams, York, Franklin, and Cumberland counties) to northern Florida and eastern Texas (Neches River).

NAMES IN USE.—Chinquapin (Del., N. J., Pa., Va., W. Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex., Ark., Ohio, Ky., Mo., Mich. (cult.).

Castanea dentata (Marsh.) Borkh. **Chestnut.**

CASTANEA VESCA β AMERICANA Michx.

CASTANEA VULGARIS γ AMERICANA A. de C.

RANGE.—From southern Maine to northwestern Vermont (Winooski River), southern Ontario, and southern shores of Lake Ontario to southeastern Michigan; southward to Delaware and southeastern Indiana, and on the Allegheny Mountains to central Kentucky and Tennessee, central Alabama, and Mississippi.

NAMES IN USE.—Chestnut (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del, Va., W. Va., N. C., Ga., Ala., Miss., Ky., Mo., Mich., Ont.); O-heh-yah-tah="Prickly Bur" (Indians, N. Y.).

QUERCUS Linn.

Quercus alba Linn. **White Oak.**

RANGE.—From southern Maine to southwestern Quebec and through central and southern Ontario, lower peninsula of Michigan and southern Minnesota to southeastern Nebraska and eastern Kansas; south to northern Florida and Texas (Brazos River).

NAMES IN USE.—White Oak (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ala., Fla., Ga., Miss., La., Tex., Ky., Mo., Ohio, Ill., Ind., Kans., Nebr., Mich., Wis., Minn., S. Dak. (cult.), Iowa, Ont.); Stave Oak (Ark.).

Quercus alba × macrocarpa Engelm.

RANGE.—Illinois (near Fountaindale and Athens); Vermont (near Charlotte).

Quercus alba × minor Coulter.

RANGE.—Illinois (Fountaindale); Maryland (Silver Springs); Missouri (Allentown).

Quercus alba × prinus Engelm.

RANGE.—District of Columbia; Vermont (near Charlotte); Tennessee (near Fowler).

Quercus lobata Née. **California White Oak.**

RANGE.—Western California (Sierra Nevada to the ocean, from the upper Sacramento to Tejon Pass, thence to Antelope Valley and to Santa Monica).

NAMES IN USE.—California White Oak (Cal.); Weeping Oak (Cal.); Valley Oak (Cal.); "Roble" (Mexicans); White Oak (Cal.); Swamp Oak (Cal.).

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Quercus breweri Engelm. **Shin Oak.**

RANGE.—California (western slopes of Sierra Nevada from northern border of the State to Tulare County).

Quercus garryana Dougl. **Pacific Post Oak.**

RANGE.—From southern Vancouver Island and southwestern British Columbia (lower Fraser River) south through western Washington, and Oregon and California (coast valleys to Santa Cruz Mountains).

NAMES IN USE.—White Oak (Cal., Oreg.); Oregon White Oak (Cal.); Pacific Post Oak (Oreg.); Oregon Oak (Oreg.); Western White Oak (Oreg.).

Quercus gambelii Nutt. **Gambel Oak.**

QUERCUS UNDULATA *α* GAMBELII Engelm.

RANGE.—From Colorado (eastern slopes Rocky Mountains and as far north as the divide between Platte and Arkansas rivers) to Utah (Wasatch Mountains), and southward through the mountains to western Texas (Pecos River region) and southwestern Nevada (Charlestown Mountains); Mexico (mountains of northern Sonora).

NAMES IN USE.—Scrub Oak (N. Mex., Ariz., Colo., Nev., Utah); Rocky Mountain Scrub Oak (Nev.); Mountain Oak (Nev.); Pin Oak (Ariz.); White Oak; Shin Oak.

Quercus minor (Marsh.) Sargent. **Post Oak.**

QUERCUS OBTUSILOBA Michx.

RANGE.—From southern Massachusetts (near Brewster, Cape Cod, and islands of Marthas Vineyard and Naushon), Rhode Island (North Kingston), and New York (Long Island) to northern Florida, southern Alabama, and Mississippi; west from Long Island to Missouri, eastern Kansas, Indian Territory, and Texas (here south to San Antonio River and west to one hundredth meridian).

NAMES IN USE.—Post Oak (Conn., R. I., N. J., Pa., Del., W. Va., N. C., S. C., Ala., Ga., Fla., Miss., La., Tex., Ark., Ky., Mo., Ill., Ind., Iowa, Kans., Nebr., Ont.); Box White Oak (R. I.); Iron Oak (Del., Miss., Nebr.); Chêne etoile (Quebec); Overcup Oak (Fla.); White Oak (Ky., Ind.); Box Oak (Md.); Brash Oak (Md.).

Quercus chapmani Sargent. **Chapman Oak.**

RANGE.—South Carolina to Florida (commonly near the coast).

Quercus macrocarpa Michx. **Bur Oak.**

RANGE.—From New Brunswick and Nova Scotia westward through St. Lawrence River valley, Ontario, southwestern Manitoba (south Lake Winnipeg); from Maine (Penobscot River region), Vermont (shores Lake Champlain), Massachusetts (Ware River), Pennsylvania (Lancaster County) west to Montana (eastern base Rocky Mountains), western Nebraska, central Kansas, and southwestward into central Tennessee, Indian Territory, and Texas (to Nueces River).

NAMES IN USE.—Bur Oak (Vt., N. Y., Pa., Del., W. Va., Ala., Miss., La., Tex., Ark., Mo., Ohio, Ill., Ky., Iowa, Kans., Nebr., Wis., Mich., Minn., N. Dak., S. Dak.); Mossycup Oak (Mass., Pa., Del., Miss., La., Tex., Ark., Ill., Iowa, Nebr., Kans., Ont.); Overcup Oak (R. I., Del., Pa., Miss., La., Ill., Minn.); Blue Oak (Ont.); Scrub Oak (Nebr., Minn.); Overcup White Oak (Vt.); Mossycup White Oak (Minn.)

Quercus lyrata Walt. **Overcup Oak.**

RANGE.—From Maryland (Potomac River near District of Columbia, and Patuxent River, 3 miles below Laurel) southward to western Florida and west through the

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Gulf region to Texas (Trinity River), through Arkansas, southwestern Missouri (only near Allenton), central Tennessee, southern Indiana, Illinois (Rafes Mill on Embarras River in southeastern Jasper County).

NAMES IN USE.—Overcup Oak (N. C., S. C., Ga., Fla., Ala., Miss., La., Tex., Ark., Ill.); Swamp Post Oak (Ala., S. C., Miss., La., Mo.); Water White Oak (S. C., Miss.); Oak (Ala.); Swamp White Oak (Tex.).

Quercus prinus Linn. **Chestnut Oak.**

RANGE.—From southern Maine (Saco River and Mount Agamenticus) and eastern Massachusetts (Blue Hills) to Maryland (District of Columbia), and in the mountains to northern Georgia and Alabama; westward to Lake Champlain and the Genesee River in New York, to Lake Erie (northern shores from Niagara River to Amhurstburg), to central Kentucky and Tennessee.

NAMES IN USE.—Chestnut Oak (Mass., R. I., Conn., N. Y., N. J., Pa., Del., Va., W. Va., N. C., Ga., Ky.); Rock Chestnut Oak (Mass., R. I., Pa., Del., Ala.); Rock Oak (N. Y., Del., Pa.); Tanbark Oak; Swamp Chestnut Oak (N. C.); Mountain Oak (Ala.).

Quercus acuminata (Michx.) Houba. **Chinquapin Oak.**

RANGE.—From New York (Gardeners Island in Lake Champlain and on Hudson River north of Newburg) westward through southern Ontario to southeastern Nebraska and eastern Kansas; southward in the Atlantic region to the District of Columbia (and upper Potomac River), and west of the Allegheny Mountains to central Alabama and Mississippi, through Arkansas and northern Louisiana to the eastern border of Indian Territory and Texas (to Nueces River, and canyons of Guadalupe Mountains in extreme western part of State).

NAMES IN USE.—Chestnut Oak (Conn., Del., Ala., N. C., Miss., La., Tex., Ohio, Ill., Mich., Kans., Nebr.); Chinquapin Oak (Mass., R. I., Pa., Del., N. C., S. C., Ala., Ark., Miss., Tex., Mo., Ind., Nebr., Kans.); Pin Oak (Kans., Ark.); Yellow Oak (Ill., Kans., Nebr., Mich.); Scrub Oak (N. Y.); Dwarf Chestnut Oak (Mass., N. C., Tenn.); Shrub Oak (Nebr.); White Oak (Tenn.); Rock Oak (Ark.).

Quercus prinoides Willd. **Dwarf Chinquapin Oak.**

RANGE.—Massachusetts (Essex County) to North Carolina and westward to southeastern Nebraska, central Kansas, Indian Territory, and eastern Texas. Range imperfectly understood.

Quercus platanoides (Lam.) Sudworth. **Swamp White Oak.**

QUERCUS BICOLOR Willd.

RANGE.—From southern Maine to northern Vermont and southwestern Quebec; west through Ontario and southern peninsula of Michigan to southeastern Iowa and western Missouri; south to the District of Columbia, northern Kentucky and Arkansas, and along the Appalachian Mountains to northern Georgia.

NAMES IN USE.—Swamp White Oak (Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., W. Va., Mo., Ill., Ind., Iowa, Mich., Ont.); Swamp Oak (R. I., Pa., Mich.).

Quercus michauxii Nutt. **Cow Oak.**

RANGE.—From Delaware (near Wilmington) to northern Florida; west through the Gulf region to Texas (Trinity River), and through Arkansas and southeastern Missouri to central Tennessee and Kentucky, Illinois, and Indiana (in valley lower Wabash River).

NAMES IN USE.—Basket Oak (Ala., Miss., La., Tex., Ark.); Cow Oak (Ala., Miss., Tex., Ark., Mo.); Swamp White Oak (Del., Ala.); Swamp Chestnut Oak (Fla.).

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Quercus michauxii × macrocarpa Sudworth.

RANGE.—Southwestern Tennessee (near Covington).

Quercus breviloba (Torr.) Sargent. **Durand Oak.**

QUERCUS DURANDII Buckl.

RANGE.—Central Alabama (and to Mulberry Fork of Tombigbee River, in Blount County) and Mississippi (near Columbus and near Mhoons Valley); Louisiana (Red River near Shreveport); Texas (from near Dallas west to central part of the State and southward on streams flowing into the Gulf to near Monterey).

NAMES IN USE.—White Oak (Tex.); Texas White Oak (Ala.); Shin Oak (Tex.); Pin Oak (Tex.); Bastard Oak (Ala., La., Tex.); Basket Oak (Ala., La., Tex.); Durand's Oak (Ala., La., Tex.).

Quercus undulata Torr. **Rocky Mountain Oak.**

RANGE.—Colorado to western Texas (mountains) and through New Mexico and Arizona to southern Utah and Nevada; northern Mexico.

NAMES IN USE.—Scrub Oak; Shin Oak.

Quercus douglasii Hook. & Arn. **(California) Rock Oak.**

RANGE.—California (from Mendocino County and valley of upper Sacramento River southward on westward slopes of Sierra Nevada and valleys of the coast ranges to the Tehachapi Pass and across to the border of the Mohave Desert.

NAMES IN USE.—Mountain White Oak (Cal.); Rock Oak (Cal.); White Oak (Cal.); Blue Oak (Cal.).

Quercus engelmanni Greene. **Engelmann Oak.**

RANGE.—Southwestern California (in a belt 15 miles wide from vicinity of Sierra Madre to the mesa east of San Diego).

NAMES IN USE.—Engelmann's Oak; Evergreen White Oak.

Quercus oblongifolia Torr. **Blue Oak.**

RANGE.—Western Texas (Chisos Mountains) through southern New Mexico and Arizona, and south into northern Mexico.

NAME IN USE.—White Oak.

Quercus arizonica Sargent. **Arizona White Oak.**

RANGE.—Southern New Mexico and Arizona.

NAME IN USE.—White Oak.

Quercus reticulata Humb. & Bonpl. **Netleaf Oak.**

RANGE.—Southern New Mexico (Mount Graham, Santa Rita, Huachuca, Chiricahua, and Santa Catalina mountains) and Arizona (San Luis and Animas mountains).

Quercus toumeyi Sargent. **Toumey Oak.**

RANGE.—Southeastern Arizona (Mule Mountain, Cochise County).

Quercus dumosa Nutt. **(California) Scrub Oak.**

RANGE.—California (western slopes of Sierra Nevada; coast ranges south of San Francisco Bay; islands off southern coast and inland to Mohave Desert; San Bernardino and San Jacinto mountains); Lower California (to near San Telmo).

Quercus dumosa revoluta Sargent. **Curl-leaf Scrub Oak.**

RANGE.—Northern California (San Francisco Bay to Mendocino County and Napa Valley).

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Quercus virginiana[1] Mill. **Live Oak.**

QUERCUS VIRENS Ait.

RANGE.—From Virginia (shores of Mobjack Bay), on islands and near the coast, to and through southern Florida (Biscayne Bay) and along the Gulf coast (from Cape Romano) to western Texas (mouth of Rio Grande River and inland to the Red River and Apache and Guadalupe mountains); Lower California (Miraflores), southern Mexico, Central America, and Cuba.

NAMES IN USE.— Live Oak (Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Tex., Cal.); Chêne Vert (La.).

Quercus emoryi Torr. **Emory Oak.**

RANGE.—Mountains of western Texas and of New Mexico and Arizona south of the Colorado plateau; Mexico (mountains of Nuevo Leon, Chihuahua, and Sonora).

NAMES IN USE.—Emory's Oak (Cal.); Black Oak (Ariz., N. Mex.).

Quercus chrysolepis Liebm. **Canyon Live Oak.**

RANGE.—From southern Oregon (Cow Creek Valley) through California (coast ranges, western slopes Sierra Nevada, San Bernardino, San Jacinto, and Cuyamaca mountains) to Lower California (Mount San Pedro Martir); (and mountain summits) southern Arizona and New Mexico; Mexico (northern Sonora).

NAMES IN USE.—Live Oak (Cal., Oreg.); Maul Oak (Cal.); Iron Oak (Cal.); Valparaiso Oak (Cal.); Black Live Oak (Cal.); Canyon Live Oak (Cal.), Canyon Oak (Cal.); Golden-cup Oak (Cal.); Hickory Oak (Kern County, Cal.).

Quercus chrysolepis palmeri Engelm. **Palmer Oak.**

RANGE.—Boundary between California and Lower California.

Quercus chrysolepis vaccinifolia (Kell.) Engelm. **Huckleberry Oak.**

RANGE.—California (highest elevations Sierra Nevada).

Quercus tomentella Engelm.

RANGE.—Santa Rosa, Santa Cruz (south of Santa Barbara), Santa Catalina Islands, south of Cape Vincent, off coast of California; Guadalupe Islands, off coast of Lower California.

Quercus agrifolia Née. **California Live Oak.**

RANGE.—From northern California (Mendocino County and along the coast ranges and islands) to Lower California (Mount San Pedro Martir).

NAMES IN USE.—Coast Live Oak (Cal.); California Live Oak (Cal.); Encina (Cal.); Evergreen Oak (Cal.)

Quercus hypoleuca Engelm. **Whiteleaf Oak.**

RANGE.—From western Texas (Limpio Mountains) over mountains of New Mexico and Arizona, south of the Colorado Plateau; Mexico (northern Chihuahua and Sonora).

NAMES IN USE.—Oak (Ariz.); Mexican Oak; White-leaved Oak.

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[1] Dr. J. K. Small has recently described the following species as new. I have not seen specimens of it, but it appears to be very closely related to *Quercus virginiana*.

Quercus geminata Small (Bull. Torr. Bot. Club, vol. 24, p. 438, 1897). A shrub or small tree 6 to 15 feet high. "Leaves narrowly oblong, elliptic, or oblong-oblanceolate, 3-6 cm. long, entire, obtuse or apiculate, strongly revolute, mostly gradually narrowed at the base, glabrous and parchment-like above, finely tomentose and conspicuously rugose on the prominent nerves beneath * * *; acorns, usually 2 at the end of a peduncle * * *; cups turbinate * * *." Florida (sandy soil).

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Quercus wislizeni A. de C. **Highland Oak.**

RANGE.—From northern California (lower slopes Mount Shasta and southward through the coast region to Santa Lucia Mountains, Santa Rosa and Santa Cruz Islands, and lower slopes of Sierra Nevada to Tijon Pass; San Bernadino, San Jacinto, and Cuyamaca mountains) to Lower California (Mount San Pedro Martir).

NAMES IN USE.—Live Oak (Cal.); Highland Live Oak (Cal.).

Quercus morehus Kell. **Morehus Oak.**

RANGE.—California (Lake County).

Quercus myrtifolia Willd. **Myrtle Oak.**

RANGE.—From South Carolina (on coast and islands) to eastern Florida, and from Biscayne Bay to eastern Louisiana.

Quercus rubra Linn. **Red Oak.**

RANGE.—Nova Scotia and southern New Brunswick through Quebec and along the north shores of Lake Huron to near Lake Namekagon; south to Middle Tennessee and Virginia, and along the Appalachian Mountains to northern Georgia; west to eastern Nebraska, central Kansas.

NAMES IN USE.—Red Oak (Me., Vt., N. H., Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Ark., Mo., Ky., Ill., Ind., Iowa, Nebr., Kans., Mich., Minn., S. Dak., Ont.); Black Oak (Vt., Conn., N. Y., Wis., Iowa, Nebr., S. Dak., Ont.); Spanish Oak (Pa., N. C.).

Quercus rubra runcinata A. de C.

RANGE.—Missouri (bottom lands opposite St. Louis).

Quercus texana Buckl. **Texan Oak.**

RANGE.—From northeastern Iowa (near Waterloo) and central Illinois through southern Illinois and Indiana, western Kentucky and Tennessee to Florida (valley Apalachicola River) and through southern Missouri, Arkansas, and Louisiana to western Texas (Limpio Mountains). Range imperfectly known.

NAMES IN USE.—Red Oak (Tex.); Spotted Oak (Tex.); Spanish Oak (Tex.).

Quercus coccinea Muenchh. **Scarlet Oak.**

RANGE.—From Maine (Androscoggin River) through southern New Hampshire and Vermont and central New York to southern Ontario; west through central Michigan and Minnesota to southeastern Nebraska, and south to the District of Columbia, northern Illinois, and on the Allegheny Mountains to North Carolina and eastern Tennessee.

NAMES IN USE.—Scarlet Oak (Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., N. C., Mo., Ill., Ind., Wis., Minn., Mich., Nebr., Iowa, Ont.); Red Oak (N. C., Ala., Wis., Nebr., Minn.); Black Oak (Mo., Ill., Iowa, Wis.); Spanish Oak (N. C.).

Quercus coccinea × pumila Sudworth.

RANGE.—Massachusetts (near Witinsville).

Quercus velutina Lam. **Yellow Oak.**

QUERCUS TINCTORIA Bartr.

RANGE.—From southern Maine (coast) to northern Vermont, southern and western Ontario and central Minnesota; south to northern Florida, west to eastern Kansas, Indian Territory, and eastern Texas.

NAMES IN USE.—Black Oak (Vt., Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex., Ohio, Ill., Iowa, Kans., Nebr., Mich., Wis., Minn., Ont.); Quercitron Oak (Del., S. C., La.,

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Kans., Minn.); Yellow Oak (R. I., N. Y., Ill., Tex., Kans., Minn.); Tanbark Oak (Ill.); Yellow-barked Oak (Minn.); Spotted Oak (Mo.); Yellow-bark (R. I.); Dyer's Oak (Tex.).

Quercus californica (Torr.) Coop. **California Black Oak.**

RANGE.—From western Oregon (McKinzie River) to the southern boundary of California (through coast mountains and on western slopes of Sierra Nevada, San Bernardino, San Jacinto, and Cuyamaca mountains).

NAMES IN USE.—Black Oak (Cal., Oreg.); Mountain Black Oak (Cal.); Kellogg's Oak (Cal.); California Black Oak (Cal.).

Quercus catesbæi Michx. **Turkey Oak.**

RANGE.—In coast region from North Carolina to Florida (Cape Malabar and Pease Creek) and west to eastern Louisiana.

NAMES IN USE.—Turkey Oak (Fla., Ga., Ala., Miss., La.); Scrub Oak (N. C., S. C., Fla., Miss.); Black Jack (S. C.); Barren Scrub Oak; Forked-leaf (S. C.); Forked-leaf Black Jack.

Quercus catesbæi × brevifolia Sudworth.

RANGE.—Florida (Lake County).

Quercus catesbæi × laurifolia Engelm.

RANGE.—South Carolina (Bluffton).

Quercus sinuata (Lam.) Walt.

RANGE.—South Carolina (near Bluffton; tree now destroyed.)

Quercus digitata (Marsh.) Sudworth. **Spanish Oak.**

QUERCUS FALCATA Michx.

RANGE.—From southern New Jersey to central Florida and through the Gulf States to eastern Texas (Brazos River), Arkansas, southwestern Missouri to middle Tennessee and Kentucky, southern Illinois and Indiana.

NAMES IN USE.—Spanish Oak (Del., Va., N. C., S. C., Ala., Fla., Miss., La., Tex., Mo., Ill.); Red Oak (N. C., Va., Ga., Fla., Ala., Miss., La., Ind.); Spanish Water Oak (La.).

Quercus digitata × velutina Sudworth.

RANGE.—Tennessee (near Covington).

Quercus palustris Muenchh. **Pin Oak.**

RANGE.—From Massachusetts (Connecticut River, near Amherst) to southeastern Missouri, and south to Virginia (Lower Potomac River), central Kentucky, northern Arkansas, and eastern border of Indian Territory.

NAMES IN USE.—Pin Oak (Mass., Conn., R. I., N. Y., Pa., Del., Va., Md., Ark., Mo., Ill., Wis., Iowa, Kans.); Swamp Spanish Oak (Ark., Kans.); Water Oak (R. I., Ill.); Swamp Oak (Pa., Ohio, Kans.): Water Spanish Oak (Ark.).

Quercus pumila (Marsh.) Sudworth. **Barren Oak.**

QUERCUS ILICIFOLIA Wang.

RANGE.—From Maine (Mount Desert Island off the coast) through eastern and southern New England; in New York (Lake George and valley of Hudson River); New Jersey (pine barrens); eastern Pennsylvania (and along the Allegheny Mountains—east in Maryland to Montgomery County) to northwestern North Carolina (King and Crowders mountains).

NAMES IN USE.—Bear Oak; Barren Oak (Md.); Dwarf Black Oak; Scrub Oak.

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Quercus georgiana Curtis. **Georgia Oak.**

RANGE.—Central Georgia (Stone Mountain, Little Stone Mountain, 9 miles south of Stone Mountain, and other granite hills 12 to 18 miles eastward in Dekalb County).

Quercus georgiana × marilandica Sargent.

RANGE.—Central Georgia (Stone Mountain, Dekalb County).

Quercus marilandica Muenchh. **Black Jack.**

QUERCUS NIGRA of authors, not of L.

RANGE.—From New York (Forbells Landing and Pine Island, Long Island) through northern Ohio, Indiana, and southern Michigan (Ann Arbor and Lansing) to southeastern Nebraska, central Kansas, and Indian Territory; south to Florida (Matanzas Inlet and Tampa Bay) and west to Texas (Nueces River).

NAMES IN USE.—Black Jack (Pa., Del., W. Va., N. C., S. C., Ga., Ala., Miss., La., Tex., Ark., Mo., Ill., Ind., Kans., Nebr., Mich., Minn., Iowa., S. Dak.); Jack Oak (N. Y., W. Va., Miss., Tex., Mo., Ohio, Ill., Kans., Nebr.); Iron Oak (Tenn.); Black Oak (Ark., Wis.); Barren Oak (Kans., Tenn.); Barrens Oak (Fla.); Scrub Oak (S. C.).

Quercus marilandica × velutina Bush.

RANGE.—Indian Territory (near Sapula).

Quercus brittoni Davis. **Britton Oak.**

RANGE.—New York (Watchogue, Staten Island).

Quercus nigra Linn. **Water Oak.**

QUERCUS AQUATICA Walt.

RANGE.—Southern Delaware to Florida (Cape Malabar and Tampa Bay); west to the Appalachian Mountains and through the Gulf States to Texas (Colorado River); through Arkansas and eastern border of Indian Territory to southeastern Missouri (Black River), middle Tennessee, and Kentucky.

NAMES IN USE.—Water Oak (Del., N. C., S. C., Ala., Fla., Miss., La., Tex., Ark., Mo.); Spotted Oak (Tex., Ala.); Duck Oak; Possum Oak; Punk Oak.

Quercus laurifolia Michx. **Laurel Oak.**

RANGE.—Coast region from southeastern Virginia (Dismal Swamp) to Florida (Mosquito Inlet and Cape Romano) and west in the Gulf region to Louisiana.

NAMES IN USE.—Laurel Oak (N. C., S. C., Ala., Fla.); Swamp Laurel Oak (Tenn.); Darlington Oak (S. C.); Willow Oak (Fla., S. C.); Water Oak (Ga.).

Quercus brevifolia (Lam.) Sargent. **Blue Jack.**

QUERCUS CINEREA Michx.

RANGE.—From North Carolina (in a maritime belt 40 to 50 miles inland) to Florida (Cape Malabar and Pease Creek across the peninsula); west on Gulf coast to Texas (Brazos River and inland as far as Dallas).

NAMES IN USE.—Upland Willow Oak (N. C., Ala., Tex.); Blue Jack (N. C., Fla., Tex., Ga.); Sand Jack (Tex.); High-ground Willow Oak (S. C.); Turkey Oak (S. C., Ga.); Shin Oak (Tex.); Cinnamon Oak (Fla.).

Quercus imbricaria Michx. **Shingle Oak.**

RANGE.—From Pennsylvania (Lehigh County) west through southern Michigan (Washtenaw County, Kalamazoo County), and Wisconsin to northern Missouri and

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northeastern Kansas; south to the District of Columbia and (in the Allegheny Mountains) to northern Georgia and Alabama, to middle Tennessee and northern Arkansas.

NAMES IN USE.—Shingle Oak (Del., N. C., S. C., Ky., Mo., Ind., Ill., Kan., Iowa, Nebr.); Laurel Oak (Pa., Del., S. C., Ky., Ill., Nebr.); Jack Oak (Ill.); Water Oak (N. C.).

Quercus imbricaria × palustris Engelm

RANGE.—Missouri (8 miles west of St. Louis; but tree since destroyed).

Quercus tridentata (de C.) Engelm. **Trident Oak.**

RANGE.—Missouri (near St. Louis—but tree now destroyed—and near Allentown) and Michigan (Washtenaw County).

Quercus leana Nutt. **Lea Oak.**

RANGE.—Ohio (near Cincinnati); District of Columbia and western North Carolina to southern Michigan, central and northern Illinois, and southeastern Missouri. Range imperfectly known.

Quercus phellos Linn. **Willow Oak.**

RANGE.—From New York (Tottenville, Staten Island) to northeastern Florida—usually in the low maritime plain, and through the Gulf region to Texas (Sabine River), and through Arkansas to southeastern Missouri, central Tennessee, and southern Kentucky.

NAMES IN USE.—Willow Oak (R. I., N. Y., Pa., Del., Ala., N. C., S. C., Fla., Miss., La., Tex., Ark., Mo.); Peach Oak (N. J., Del., Ohio); Water Oak (S. C.); Swamp Willow Oak (Tex.).

Quercus phellos × digitata Small.

RANGE.—North Carolina (Stanley County).

Quercus phellos × pumila Sudworth.

RANGE.—New Jersey (Mays Landing).

Quercus heterophylla Michx. f. **Bartram Oak.**

RANGE.—Pennsylvania (near Philadelphia—but tree long since destroyed); New Jersey (near Camden); Delaware (Wilmington); New York (Staten Island); Virginia (near Alexandria); District of Columbia; western North Carolina; Tennessee (Coffee County); Alabama (near Falkville); Texas (Houston).

NAMES IN USE.—Bartram's Oak (Del., Ala.); Burriers Oak (lit.).

Quercus subimbricaria (de C.) Sudworth.

QUERCUS PHELLOS × TINCTORIA Gray.

QUERCUS PHELLOS × NIGRA Britt.

RANGE.—New Jersey (between Keyport and South Amboy); New York (Staten Island); North Carolina (Yadkin River); South Carolina (near Aiken).

Quercus densiflora Hook. & Arn. (**California**) **Tanbark Oak.**

RANGE.—Southern Oregon (Umpqua River) and southward through California (coast ranges to Santa Inez Mountains—east of Santa Barbara, and western slopes of the Sierra Nevada to Mariposa County).

NAMES IN USE.—Tanbark Oak (Cal.); Chestnut Oak (Cal.); California Chestnut Oak (Oreg.); Peach Oak (Oreg.); Live Oak (Oreg.).

Quercus densiflora echinoides (R. Br. Campst.) Sargent.

RANGE.—Southern Oregon (Canyon Creek) and northern California (Mount Shasta and Sierra Nevada).

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Family ULMACEÆ.

ULMUS Linn.

Ulmus crassifolia Nutt. **Cedar Elm.**

RANGE.—From Mississippi (Sunflower River) through southern Arkansas and Texas (from coast to the Pecos River) to Mexico (Nuevo Leon).

NAMES IN USE.—Cedar Elm (Tex.); Red Elm (Tex.); Basket Elm (Ark.).

Ulmus pubescens Walt. **Slippery Elm.**

ULMUS FULVA Michx.

RANGE.—From Lower St. Lawrence River (Orleans Island) through Ontario to North Dakota and eastern Nebraska; south to western Florida, central Alabama, and Mississippi and Texas (San Antonio River).

NAMES IN USE.—Slippery Elm (Vt., N. H., Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Fla., Ala., Ga., Miss., La., Tex., Ky., Mo., Kans., Nebr., Ohio, Ill., Ind., Wis., Mich., Iowa, Minn., Ont.); Red Elm (Vt., Mass., N. Y., Del., Pa., W. Va., S. C., Ala., Miss., La., Tex., Ark., Ky., Mo., Ill., Kans., Nebr., Iowa, Ohio, Ont., Wis., Mich., Minn.); Red-wooded Elm (Tenn.); Rock Elm (Tenn.); Orme gras (La.); Moose Elm; Oo-hoosk-ah="It slips" (Indians, N. Y.).

Ulmus americana Linn. **White Elm.**

RANGE.—From southern Newfoundland to Lake Superior (north shores) and to the eastern base of the Rocky Mountains (here up the Saskatchewan River to latitude 54° 30′); south to Florida (Cape Canaveral and Pease Creek); west to Dakota (Black Hills), western Nebraska, western Kansas, Indian Territory, and Texas (Rio Concho River).

NAMES IN USE.—American Elm (Vt., Mass., R. I., N. Y., Del., Pa., N. C., Miss., Tex., Ill., Ohio, Kans., Nebr., Mich., Minn., Ont.); White Elm (Me., N. H., Vt., Mass., R. I., N. Y., Pa., N. J., Del., Va., W. Va., N. C., S. C., Ala., Fla., Miss., La., Tex., Ark., Ky., Mo., Ill., Ind., Kans., Nebr., Ohio, Ont., Iowa, Mich., Minn., N. Dak., S. Dak.); Water Elm (Miss., Tex., Ark., Mo., Ill., Iowa, Mich., Ohio., Minn., Nebr.); Elm (Mass., R. I., Conn., N. J., Pa., N. C., S. C., Iowa, Wis.); Orme Maigre (La.); Swamp Elm; Rock Elm.

VARIETY DISTINGUISHED IN CULTIVATION.

Ulmus americana pendula Ait. **Weeping American Elm.**

Ulmus racemosa Thomas. **Cork Elm.**

RANGE.—From Quebec (eastern townships) through Ontario, and south through northwestern New Hampshire to southern Vermont; westward through northern New York, southern Michigan, and Wisconsin (Lake Mendota, near Madison) to northeastern Nebraska (Meadville, Keyapaha County), southeastern Missouri, and middle Tennessee.

NAMES IN USE.—Cork Elm (Vt., Mass., R. I., N. Y., N. J., Ark., Ky., Mo., Wis., Mich., Ohio, Iowa); Rock Elm (R. I., W. Va., Ky., Mo., Ill., Wis., Iowa, Mich., Nebr., Ont.); Hickory Elm (Mo., Ill., Ind., Iowa);

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White Elm (Ont.); Thomas Elm (Tenn.); Northern Cork-barked Elm (Tenn.); Corkbark Elm (N. Y.); Northern Cork Elm (Vt.); Wahoo (Ohio); Cliff Elm (Wis.); Corky White Elm.

Ulmus alata Michx. **Wing Elm.**

RANGE.—From southern Virginia to western Florida, and from southern Illinois and Indiana through western Kentucky and Tennessee to the Gulf, and west through southern Missouri, Arkansas, eastern Indian Territory, and Texas (to Trinity River).

NAMES IN USE.—Winged Elm (N. C., S. C., Ark., Tex., Ill., Ind.); Wahoo (W. Va., N. C., S. C., La., Tex., Ky., Mo.); Wahoo Elm (Mo.); Witch Elm (W. Va.); Elm (W. Va.); Cork Elm (Fla., S. C., Tex.); Water Elm (Ala.); Small-leaved Elm (N. C.); Red Elm (Fla., Ark.); Whahoo (S. C.); Corky Elm (Tex.); Mountain Elm (Ark.).

PLANERA Gmelin.

Planera aquatica (Walt.) Gmel. **Planertree.**

RANGE.—From North Carolina (Cape Fear River) to western Florida, and west through southern Alabama and Mississippi to Texas (Trinity River); northward through western Louisiana and Arkansas to southern Missouri, west Tennessee (Brownsville), central Kentucky, and Illinois (to lower Wabash River).

NAMES IN USE.—American Planetree (Ala.); Planertree (N. C., S. C., Fla., La., Tex., Ark., Tenn.); Water Elm (Fla.); Sycamore (N. C.); Plene (La.).

CELTIS[1] Linn.

Celtis occidentalis Linn. **Hackberry.**

RANGE.—From St. Lawrence River (St. Helens Island, near Montreal) to southern Ontario; in the United States from Massachusetts (Massachusetts Bay) to northwestern Nebraska, North Dakota, southern Idaho (Boise City), eastern Washington and Oregon (Snake River), western Washington (Puget Sound), Nevada[2] (East Humboldt Mountains), New Mexico, and south to Florida (Biscayne Bay and Cape Romano), middle Tennessee, Missouri, eastern Kansas, Indian Territory, and eastern Texas.

NAMES IN USE.—Hackberry (N. H., Vt., R. I., N. Y., N. J., Del., Pa., W. Va., N. C., S. C., Ala., Fla., Miss., La., Tex., Ariz., Ark., Ky., Mo., Ill.,

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[1]Dr. J. K. Small has recently described the following new species, specimens of which I have not seen:

Celtis Georgiana Small (Bull. Torr. Bot. Club, vol. 24, p. 439, 1897). "A low species ('diffuse shrub') related to *C. pumila*, from which it may be distinguished by its smaller, nearly acute leaves, the very short pedicels, and smaller tan-colored drupes." North central Georgia (Yellow River Valley, near McGuire's mill in Gwinnett County, and in vicinity of Stone Mountain).

Celtis Helleri Small (l. c.). A tree about 30 feet high and 3 feet in diameter, with much-branched and wide-spreading crown. Bark of trunk and main branches with corky warts. The leaves are described as "rather firm, the blades ovate to oblong, 4 to 7 cm. long, obtuse or acute, crenate-serrate, * * * rounded or subcordate at the base, * * * scabrous-pubescent above, pale and tomentose beneath." Between San Antonio and San Antonio River, Texas. This tree appears to be very closely related to *Celtis occidentalis reticulata*

[2]Shrubby variety, *C. occidentalis pumila* Gr., common from South Atlantic States to Missouri, Colorado, Utah, and Nevada.

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Ind., Wis., Iowa, Kans., Nebr., Mich., Minn., S. Dak., Ohio, Ont.); Sugarberry (N. Y., Pa., Del., N. C., S. C., Minn.); Nettle-tree (R. I., Mass., Del., Mich.); American Nettle-tree (Tenn.); Hoop Ash (Vt.); One-berry (R. I.); Hack-tree (Minn.); Juniper-tree (N. J.); Bastard Elm (N. J.).

Celtis occidentalis reticulata (Torr.) Sargent. **Palo Blanco.**

RANGE.—From eastern Texas (Dallas) to the Rio Grande River and through New Mexico and Arizona to southern Utah, Nevada, California (western rim of Colorado Desert); Lower California (San Julio Canyon and Cerros Island).

NAMES IN USE.—Hackberry (Tex.); Palo Blanco (Tex.).

Celtis mississippiensis Bosc. **Sugarberry.**

RANGE.—From southern Indiana and Illinois through Kentucky and Tennessee to Florida (Biscayne Bay), and through Missouri, Arkansas, and Texas to Mexico (Nuevo Leon).

NAMES IN USE.—Sugarberry (Fla., Ala., Miss.); Connu (La.); Bois inconnu (La.); Hackberry (Tenn.).

Family MORACÆ.

MORUS Linn.

Morus rubra Linn. **Red Mulberry.**

RANGE.—From western Massachusetts and New York (Long Island) to southern Ontario, central Michigan, southeastern Nebraska, eastern Kansas; south to Florida (Biscayne Bay and Cape Romano) and Texas (Colorado River).

NAMES IN USE.—Red Mulberry (Me., Vt., Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., Fla., Ala., Ga., Miss., La., Tex., Ark., Ky., Mo., Ohio, Mich., Ill., Ind., Kans., Nebr., Ont.); Mulberry (Pa., N. C., S. C., Fla., Ala., Ark., Tex., Ky., Mo., Ohio, Ill., Iowa, Nebr.); Black Mulberry (N. J., Pa., W. Va.); Virginia Mulberry-tree (Tenn.); Murier Sauvage (La.).

Morus celtidifolia H. B. K. **Mexican Mulberry.**

RANGE.—From Texas (south from the Colorado River and mountains of western part of the State) and southern New Mexico to Arizona (Santa Rita Mountains); Mexico (from Nuevo Leon to Chihuahua and through southern Mexico) to Central America and Peru.

NAME IN USE.—Mexican Mulberry (Tex.).

Morus alba Linn. **White Mulberry.**

RANGE.—China; but widely cultivated and naturalized in the United States.

VARIETIES DISTINGUISHED IN CULTIVATION.

Morus alba tatarica (Linn.) Loud. **Russian Mulberry.**
Morus alba rosea Loud.
Morus alba macrophylla (Moretti) Loud. **Largeleaf Mulberry.**
Morus alba vulgaris tokwa (Sieb.) Bur.
Morus alba pyramidalis Seringe.
Morus alba pendula (Dipp.) Sudw.
Morus alba constantinopolitana (Poir.) Loud.
Morus alba multicaulis (Parr.) Loud.
Morus alba venosa Delile.

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BROUSSONETIA L'Her.

Broussonetia papyrifera Vent. **Paper Mulberry.**

RANGE.—Japan. Cultivated and naturalized in the Southern States.

TOXYLON Raf.

Toxylon pomiferum Raf. **Osage Orange.**

MACLURA AURANTIACA Nutt.

RANGE.—From southern Arkansas (south of Arkansas River) through southeastern Indian Territory and southern Texas (to about latitude 35° 56″). Widely distributed elsewhere by cultivation.

NAMES IN USE.—Osage Orange (Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Ala., Miss., La., Tex., Ky., Mo., Ohio., Ill., Kans., Nebr., Iowa, Mich.); Bois D'Arc (La., Tex., Mo.); Bodock (Kans.); Mock Orange (La.); Bow-wood (Ala.); Osage Apple-tree (Tenn.); Yellow-wood (Tenn.); Hedge (Ill.); Hedge-plant (Iowa, Nebr.); Osage (Iowa).

VARIETY DISTINGUISHED IN CULTIVATION.

Toxylon pomiferum inerme André. **Thornless Osage Orange.**

FICUS Linn.

Ficus aurea Nutt. **Golden Fig.**

RANGE.—Southern Florida (shores and islands from Indian River on the east coast, and Tampa Bay on the west coast to the southern keys); Bahama Islands.

NAMES IN USE.—Wild Fig (Fla.); India-Rubber-tree (Fla.); Wild Rubber-tree (Fla.).; Rubber-tree (Fla.).

Ficus populnea Willd. **Poplarleaf Fig.**

FICUS PEDUNCULATA Nutt.

RANGE.—Florida (Biscayne Bay region and Key Largo, Umbrella Key, Boca Checa Key, Pumpkin Key, and Key West); West Indies.

NAMES IN USE.—Wild Fig (Fla.); India-Rubber-tree (Fla.).

Family POLYGONACEÆ.

COCCOLOBIS Browne.

Coccolobis uvifera (Linn.) Sargent. **Sea Grape.**

RANGE.—Southern Florida (shores from Mosquito Inlet on the east coast to the southern keys, and from Tampa Bay on the west coast to Cape Sable); Bermuda and Bahama Islands, West Indies, and in South America from Colombia to Brazil.

NAMES IN USE.—Sea Grape (Fla.); Seaside Plum.

Coccolobis laurifolia (Jacq.) Sargent. **Pigeon Plum.**

COCCOLOBA FLORIDANA Meisn.

RANGE.—Southern Florida (east coast from Cape Canaveral to the southern keys, and on the west coast from Cape Romano to Cape Sable; Bahamas, West Indies, and Venezuela.

NAME IN USE.—Pigeon Plum (Fla.)

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Family NYCTAGINACEÆ.

PISONIA Linn.

Pisonia obtusata Jacq. **Blolly.**

RANGE.—Southern Florida (shores on the east coast from Cape Canaveral to the southern islands; especially large on Elliotts and Old Rhodes Key); West Indies to Brazil.

NAMES IN USE.—Pigeon-wood (Fla.); Beef-wood (Fla.); Cork-wood (Fla.); Pork-wood (Fla.); Blolly (Fla.).

Family MAGNOLIACEÆ.

MAGNOLIA Linn.

Magnolia fœtida (Linn.) Sargent. **(Evergreen) Magnolia.**

MAGNOLIA GRANDIFLORA Linn.

RANGE.—Coast region North Carolina (south of Cape Fear River) to Florida (Mosquito Inlet and Tampa Bay) and westward in the Gulf coast region to Texas (Brazos River); through western Louisiana to southern Arkansas.

NAMES IN USE.—Magnolia (N. C., S. C., Ala., Fla., Miss., La., Tex., Ky.); Big Laurel (N. C., S. C., Miss., La.); Bull Bay (Ala., Ga., Miss.); Great Laurel Magnolia (Ala.); Laurel-leaved Magnolia; Large-flowered Evergreen Magnolia; Bat-tree; Laurel Bay; Laurel (S. C.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Magnolia fœtida lanceolota (Ait.) Sudw. **Exmouth Magnolia.**
Magnolia fœtida præcox (Loud.) Sarg.
Magnolia fœtida angustifolia (Loud.) Sarg.
Magnolia fœtida ferruginea (Sims) Sudw.

Magnolia glauca Linn. **Sweet Magnolia.**

RANGE.—Massachusetts (Gloucester, Essex County); Long Island (Turtle Pond, Suffolk County); from New Jersey to Florida (Biscayne Bay on the east coast, and to Tampa Bay on the west coast); west in the Gulf region to Texas (Trinity River).

NAMES IN USE.—Sweet Bay (Mass., R. I., Pa., N. J., N. C., S. C., Ala., Fla., Miss., La., Ark., Mo.); White Bay (N. C., S. C., Ala., Fla., Miss., La.); Swamp Laurel (Mass., N. C., Ga., Miss.); Swamp Sassafras (Del., Pa., Tenn.); Swamp Magnolia (N. J., Pa., Tenn.); Magnolia (N. J., Del., Pa.); White Laurel (Del., Miss., La.); Beaver-tree (Del., S. C., Miss.); Bay (S. C.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Magnolia glauca longifolia Ait.
Magnolia glauca major Sims. **Thomson Magnolia.**

Magnolia acuminata Linn. **Cucumber-tree.**

RANGE.—From western New York through southern Ontario to southern Illinois and south in the Appalachian Mountains to southern Alabama (Stockton) and northeastern Mississippi (Meridian); central Kentucky and Tennessee (near Nashville and eastern part of State); northeastern, southern, and southwestern Arkansas.

NAMES IN USE.—Cucumber-tree (R. I., Mass., N. Y., Pa., D. C. (cult.), N. C., S. C., Ala., Miss., La., Ark., Ky., W. Va., Ohio, Ind., Ill.); Moun-

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tain Magnolia (Miss., Ky.); Cucumber (W. Va.); Black Lin (W. Va.); Magnolia (Ark.); Pointed-leaved Magnolia (lit.).

Magnolia acuminata cordata (Michx.) Loud.

Yellow-flowered Cucumber-tree.

RANGE.—Occasional in the Alleghenies, but most perfect in cultivation.

NAMES IN USE.—Cucumber-tree (Va., N. C., Miss., La.); Yellow-flowered Magnolia (Ala., La.); Yellow-flowered Cucumber-tree (Ala.); Yellow Cucumber-tree (Ala.); Heart-leaved Cucumber-tree (N. C.).

Magnolia macrophylla Michx. **Largeleaf Umbrella.**

RANGE.—From North Carolina (southern Allegheny Mountains) to southeastern Kentucky, to middle and western Florida and southern Alabama; through northern Mississippi to Louisiana (Pearl River); central Arkansas (Garland, Montgomery, Hot Springs, and Sebastian counties).

NAMES IN USE.—Large-leaved Cucumber-tree (Ala., Miss., La.); Great-leaved Magnolia (N. C., Miss., La.); Large-leaved Umbrella-tree (N. C., Tenn.); Cucumber (Ky.); Cucumber-tree (Fla.); Long-leaved Magnolia (S. C.).

Magnolia tripetala Linn. **Umbrella-tree.**

MAGNOLIA UMBRELLA Desrouss.

RANGE.—From southern Pennsylvania (throughout the Allegheny Mountains and to the coast) to central Alabama; west to central Kentucky and Tennessee and northeastern Mississippi; central and southwestern Arkansas.

NAMES IN USE.—Umbrella-tree (Pa., W. Va., N. C., S. C., Ala., Miss., La.); Cucumber (Ky.); Magnolia (W. Va.); Elkwood.

Magnolia fraseri Walt. **Fraser Umbrella.**

RANGE.—Southwestern Virginia (mountains) to Florida (Chattahoochee River) and west through eastern Tennessee and Alabama to northern Mississippi (Pearl River).

NAMES IN USE.—Long-leaved Cucumber-tree (N. C., S. C.); Ear-leaved Umbrella-tree (N. C., S. C., Miss.); Ear-leaved Cucumber-tree (N. C., Fla.); Indian Physic (N. C., Tenn.); Indian Bitters (N. C.); Cucumber (Ky.); North Carolina Bay-tree (W. Va.); Cucumber-tree (Fla.); Water Lily-tree; Mountain Magnolia; Whahoo.

LIRIODENDRON Linn.

Liriodendron tulipifera Linn. **Tulip-tree.**

RANGE.—From Rhode Island to southwestern Vermont and west to Lake Michigan (through southern Michigan as far north as the Grand River); south to Florida, southern Alabama, and Mississippi; west of Mississippi River in southeastern Missouri and adjacent Arkansas.

NAMES IN USE.—Tulip-tree (Vt., Mass., R. I., Conn., N. Y., N. J., Del., Pa., Va., W. Va., D. C., N. C., S. C., Ga., Ark., Ky., Ohio, Ind., Ill., Ont.); White-wood (Vt., Mass., R. I., Conn., N. Y., N. J., Del., S. C., Ky., Ohio, Ill., Mich., Ont.); Yellow Poplar (N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ala., Ark., Ky., Ohio, Ind., Mo.); Tulip Poplar (Del., Pa., S. C., Ill.); Poplar (R. I., Del., N. C., S. C., Fla., Ohio); White Poplar (Pa., Ky., Ind.); Blue Poplar (Del., W. Va.); Hickory

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Poplar (Va., W. Va., N. C.); Popple (R. I.); Cucumber-tree (N. Y.); Canoe-wood (Tenn.); Old-Wife's-Shirt-tree (Tenn.); Ko-yen-ta-ka-ah-ta="White-tree" (Onandaga Indians, N. Y.); Basswood (Ohio).

VARIETIES DISTINGUISHED IN CULTIVATION.

Liriodendron tulipifera obtusiloba Michx.
Liriodendron tulipifera pyramidalis Dipp. **Pyramidal Tulip-tree.**
Liriodendron tulipifera penache Elw. & B. **Variegated Tulip-tree.**
Liriodendron tulipifera aureo-maculata (Arb. Kew.) Sudw.

Family ANNONACEÆ.

ASIMINA Adans.

Asimina triloba (Linn.) Dunal. **Papaw.**

RANGE.—From western New York to the north shores of Lake Huron; from eastern and central Pennsylvania through southern Michigan, eastern Kansas; south to middle Florida and Texas (to the Sabine River).

NAMES IN USE.—Papaw (R. I., Del., N. Y., N. J., D. C., Va., W. Va., N. C., S. C., Ga., Miss., La., Ky., Ohio, Ill., Ind., Mo., Iowa, Kans., Nebr.); Custard Apple (Ont., Del., Pa., Ohio, S. C., Miss.); Banana (Ark.); False Banana (Ill.); Jasmine (La.); Jasminier (La.); Fetid Shrub (N. C.).

ANNONA Linn.

Annona glabra Linn. **Pond Apple.**

RANGE.—Southern Florida (shores on the east coast from Biscayne Bay to Cape Malabar, and on the west coast from Pease Creek to Caloosa River); Bahama, San Domingo, St. Thomas, and St. Croix islands.

NAMES IN USE.—Pond Apple (Fla.); Custard Apple (Fla.).

Family LAURACEÆ.

PERSEA Gaertn. f.

Persea borbonia (Linn.) Spreng. **Red Bay.**

PERSEA CAROLINENSIS Nees.

RANGE.—Coast region from Virginia to Florida (Biscayne Bay and Cape Romano) and the Gulf region to Texas (Brazos River); northward through Louisiana to southern Arkansas.

NAMES IN USE.—Red Bay (N. C., S. C., Ga., Fla., Ala., Miss., La.); Bay Galls (Tenn.); Laurel-tree (La.); Laurier Petit Magnolia (La.); Florida Mahogany (Fla.); Sweet Bay (Fla.); False Mahogany (lit.)

Persea pubescens (Pursh) Sargent. **Swamp Bay.**

PERSEA CAROLINENSIS var. PALUSTRIS Chapm.

RANGE.—South Atlantic and Gulf coast region from North Carolina to Mississippi.

NAMES IN USE.—Swamp Red-Bay (Fla.); Bay (Ga.).

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OCOTEA Aublet.

Ocotea catesbyana (Michx.) Sargent. **Lancewood.**

NECTANDRA WILLDENOVIANA Meisner.

RANGE.—Southern Florida (shores and islands on the east coast south of Cape Canaveral, and on the west coast south of Cape Romano).

NAMES IN USE.—Lancewood (Fla.); Sweetwood (Jamaica); Cigua (Cuba); Avispillo (Puerto Rico); Canela (Puerto Rico).

SASSAFRAS Nees & Eberm.

Sassafras sassafras (Linn.) Karst. **Sassafras.**

SASSAFRAS OFFICINALE Nees & Eberm.

RANGE.—From eastern Massachusetts through southern Vermont, southern Ontario, and central Michigan, southeastern Iowa, eastern Kansas, and Indian Territory; south to central Florida and Texas (Brazos River).

NAMES IN USE.—Sassafras (Vt., N. H., Mass., Conn., R. I., N. Y., N. J., Pa., Del., Md., Va., W. Va., N. C., S. C., Ga., Fla., Miss., La., Tex., Ark., Ky., Mo., Ill., Ind., Kans., Nebr., Mich., Ohio, Ont.); Saxifrax (Fla.); Saxifrax-tree (Tenn.); Sassafac (W. Va.); Sassafrac (Del); Gumbo file (La., Negro dialect); Wah-eh-nah-kas = "Smelling stick" (Onondaga Indians, N. Y.).

UMBELLULARIA Nutt.

Umbellularia californica (Hook. & Arn.) Nutt. **California Laurel.**

RANGE.—From Oregon (Rogue River) through California (coast ranges and western slopes of Sierra Nevada to southern slopes of San Bernardino Mountains).

NAMES IN USE.—California Laurel (Cal., Nev.); Mountain Laurel (Cal., Nev.); California Bay-tree (Cal., Nev.); Myrtle-tree (Oreg.); Cajeput (Oreg.); California Olive (Oreg.); Myrtle (Oreg.); Spice-tree (Nev., Oreg.); Laurel (Cal.); Bay-tree (Cal.); Oreodaphne (Cal.); Californian Sassafras.

Family CAPPARIDACEÆ.

CAPPARIS Linn.

Capparis jamaicensis Jacq. **Florida Caper.**

RANGE.—Southern Florida (coast from Cape Canaveral to the southern keys).

NAME IN USE.—Caper-tree (Fla.).

Family SAXIFRAGACEÆ.

LYONOTHAMNUS Gray.

Lyonothamnus floribundus Gray. **Santa Cruz Ironwood.**

RANGE.—Santa Catalina and Santa Cruz islands off the southern coast of California.

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Family HAMAMELIDACEÆ.

HAMAMELIS Linn.

Hamamelis virginiana Linn. **Witch Hazel.**

RANGE.—From Nova Scotia, New Brunswick, and valley of the St. Lawrence River to southern Ontario, Wisconsin, and eastern Nebraska; south to northern Florida and eastern Texas.

NAMES IN USE.—Witch Hazel (Me., Vt., Mass., R. I., Conn., N. Y., N. J., Del., Pa., Va., W. Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex., Ky., Mo., Ill., Wis., Iowa, Ohio, Mich., Nebr.); Oe-eh-nah-kwe-ha-he = "Spotted stick" (Onondaga Indians, N. Y.); Winter Bloom, Snapping Hazel, Spotted Alder (lit. of domestic medicine).

LIQUIDAMBAR Linn.

Liquidambar styraciflua Linn. **(Red, or) Sweet Gum.**

RANGE.—From Connecticut (Fairfield County) to southeastern Missouri and Arkansas; south to Florida (Cape Canaveral and Tampa Bay) and Texas (Trinity River).

NAMES IN USE.—Sweet Gum (Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex., Ark., Ky., Mo., Ill., Ind., Ohio); Liquidamber (R. I., N. Y., Del., N. J., Pa., La., Tex., Ohio, Ill.); Red Gum (Va., Ala., Miss., Tex., La.); Gum (Va.); Gum-tree (S. C., La.); Alligator-wood (N. J.); Bilsted (N. J.); Star-leaved Gum; Satin Walnut (lumber markets).

Family PLATANACEÆ.

PLATANUS Linn.

Platanus occidentalis Linn. **Sycamore.**

RANGE.—Southeastern New Hampshire and southern Maine to northern Vermont and Lake Ontario (Don River, near north shores of the lake); west to eastern Nebraska and Kansas, and south to northern Florida, central Alabama and Mississippi, and Texas (Brazos River and thence south to Devils River).

NAMES IN USE.—Syeamore (Vt., N. H., Mass., Conn., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Tex., Ky., Ark., Mo., Ill., Ind., Iowa, Kan., Nebr., Mich., Wis., Ohio, Ont.); Button-wood (Vt., N. H., R. I., Mass., N. Y., N. J., Pa., Del., S. C., Ala., Miss., La., Tex., Ark., Mo., Ill., Nebr., Mich., Minn., Ohio, Ont.); Buttonball-tree (Mass., R. I., Conn., N. Y., N. J., Pa., Del., Miss., La., Mo., Ill., Iowa, Mich., Nebr., Ohio); Buttonball (R. I., N. Y., Pa., Fla.); Plane-tree (R. I., Del., S. C., Kans., Nebr., Iowa); Water Beech (Del.); Platane (La.); Cotonier (La.); Bois puant (La.); Oo-da-te-cha-wun-nes = "Big stockings" (Indians, N. Y.).

Platanus racemosa Nutt. **California Sycamore.**

RANGE.—California (from the lower Sacramento River through interior valleys and coast ranges) to Lower California (San Pedro Martir Mountain).

NAMES IN USE.—Sycamore (Cal.); Buttonwood; Buttonball-tree (Cal.); Buttonball (Cal.)

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Platanus wrightii Wats. **Arizona Sycamore.**

RANGE.—Southwestern New Mexico and southern Arizona; Mexico (Sonora).

NAMES IN USE.—Sycamore (Ariz.); Arizona Sycamore (Cal.).

Family ROSACEÆ.

VAUQUELINIA Correa ex H. B. K.

Vauquelinia californica (Torr.) Sargent. **Vauquelinia.**

VAUQUELINIA TORREYI Wats.

RANGE.—Southern Arizona (mountains; arborescent on Santa Catalina Mountains) and Mexico (Sonora) to Lower California.

CERCOCARPUS H. B. K.

Cercocarpus ledifolius Nutt. **Mountain Mahogany.**

RANGE.—From western Wyoming to Montana (western slopes Rocky Mountains), Idaho (Cœur d'Alene Mountains), Oregon (eastern Blue Mountains), and southward (through Wasatch Mountains and ranges of the Great Basin) to California (eastern slopes Sierra Nevada and northern slopes of San Bernardino Mountains), and to northern New Mexico and Arizona.

NAME IN USE.—Mountain Mahogany (Cal., N. Mex., Utah, Idaho, Mont.).

Cercocarpus parvifolius Nutt. **Valley Mahogany.**

RANGE.—From western Nebraska to Oregon (Siskiyou Mountains), south to western Texas and northern Mexico; California (west of Sierra Nevada and south to San Jacinto mountains; Santa Cruz Islands); Lower California (mountains).

NAMES IN USE.—Mountain Mahogany (Cal., N. Mex., Utah, Idaho, Colo.); Valley Mahogany (Cal.); Feather-tree (Cal.).

Cercocarpus parvifolius betuloides (Nutt) Sargent. **Birchleaf Mahogany.**

RANGE.—California (coast ranges).

Cercocarpus parvifolius breviflorus (Gr.) Jones. **Short-flower Mahogany.**

RANGE.—Southern boundary of New Mexico, Arizona, and California.

Cercocarpus parvifolius paucidentatus Wats. **Entireleaf Mahogany.**

RANGE.—Northern New Mexico and southern Arizona.

PYRUS Linn.

Pyrus coronaria Linn. **Sweet Crab.**

RANGE.—Canada (from Humber River west on shores of Lake Erie) and south through western New York and Pennsylvania to the District of Columbia, and on the Allegheny Mountains to central Alabama; west to southern Minnesota, eastern Nebraska, eastern Kansas, Indian Territory, northern Louisiana, and eastern Texas.

NAMES IN USE.—American Crab (R. I., N. J., Del., Pa., Ala., Miss., La., Ill., Ohio, Ont., Kans., Nebr., Mich., Minn.); Sweet-scented Crab (Mass., Del., Pa., N. C., S. C., Miss., Ill., Ohio, Iowa); Crab Apple (S. C., La., Ky., Mo., Ill., Ohio, Iowa, Kans., Nebr.); Wild Crab (N. Y., Ill., Ind., Wis., Iowa, Kans., Minn., Mo., Ark.); Crab (W. Va., N. C., Ga., Miss., Wis.); American Crab Apple (Nebr.); Fragrant Crab.

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Pyrus ioensis (Wood) Bailey. **Iowa Crab.**

RANGE.—Wisconsin, Illinois, Iowa, and Kansas. Range imperfectly understood.

Pyrus soulardi Bailey. **Soulard Apple.**

RANGE.—Minnesota to Texas. Less common in nature than in cultivation.

Pyrus malus Linn. **Wild Apple.**

RANGE.—Europe. Widely naturalized in the United States and running wild in many localities.

Pyrus angustifolia Ait. **Narrowleaf Crab.**

RANGE.—From Pennsylvania (Allegheny County), New Jersey (Cape May County), and southern Delaware southward (in coast region) to western Florida (Chattahoochee River); west through the Gulf States to Louisiana (Red River), and north to middle (Bonair, Dickson County) and eastern Tennessee.

NAMES IN USE.—Southern Crab Apple (Del., N. C., Ala., Miss., La.); American Crab Apple (R. I., N. J., Miss.); Narrowleaf Crab (Ala.); Crab Apple (N. C., S. C., Ga.); Wild Crab Apple; Narrowleaved Crab Apple (N. C.); Narrowleaved Crab (S. C.); Crabtree (Va., Fla.).

Pyrus rivularis Dougl. **Oregon Crab.**

RANGE.—From the Aleutian Islands south along the coast and islands of Alaska and British Columbia through western Washington and Oregon to California (Sonoma and Plumas counties).

NAMES IN USE.—Oregon Crab Apple (Cal., Wash., Oreg.); Crab or Wild Apple.

Pyrus americana (Marsh.) de C. **Mountain Ash.**

RANGE.—From Newfoundland to Manitoba, and south through Quebec and Ontario, Great Lake region, and high elevations in northeastern United States to eastern Tennessee, Virginia, and North Carolina.

NAMES IN USE.—Mountain Ash (Vt., N. H., Mass., R. I., N. Y., N. J., Pa., Va., W. Va., N. C., Ky., Mich., Ont.); American Mountain Ash (Pa.); Mountain Sumach (N. C., S. C.); Wine-tree (N. C.); Roundwood (Me.); Life of Man (N. Y.); Rowan-berry; "Peruve" (mts., Tenn.).

Pyrus americana microcarpa (Pursh) Torr. & Gr. **Smallfruit Mountain Ash.**

RANGE.—Allegheny Mountains.

Pyrus sambucifolia Cham. & Schl. **Elderleaf Mountain Ash.**

RANGE.—Southern Greenland to Labrador and northern New England (mountains); westward on the northern shores of the Great Lakes to Little Slave Lake, through the Rocky Mountains to Alaska (Kamchatka and northeastern Asia, Kuril Islands to Japan); south (in mountains) to New Mexico and central California (Yosemite Valley).

NAMES IN USE.—Mountain Ash (Vt., Ont.); Elder-leaved Mountain Ash.

AMELANCHIER Medic.

Amelanchier canadensis (Linn.) Medic. **Serviceberry.**

RANGE.—From Newfoundland southward to northern Florida, and west along the northern shores of the Great Lakes to Minnesota, eastern Nebraska, eastern Kansas, Louisiana, and southern Arkansas.

NAMES IN USE.—June-berry (Mass., N. Y., Pa., Del., Ill., Kans., S. Dak.); Shad Bush (Mass., R. I., N. Y., Pa., Del., S. C.); Service-

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berry (Del., Ill., Ark., Fla., S. Dak.); Service-tree (Pa., Del.); May Cherry (Pa., N. C.); Indian Cherry (Pa.); Wild Indian Pear (Newfoundland); Currant tree (Fla., Ala.); Shad-berry (Fla.); "Savice" (Tenn.).

Amelanchier canadensis obovalis (Michx.) B. S. P.

Longleaf Service-tree.

RANGE.—Nova Scotia, New Brunswick, Quebec, Ontario, and northwestward to the Mackenzie River (latitude 65°); south to Virginia, and west to Minnesota and Missouri; South Carolina (coast region) to Alabama (Mobile Bay).

Amelanchier canadensis spicata (Lam.) Sargent.

Amelanchier alnifolia Nutt. **Western Serviceberry.**

RANGE.—From Alaska (Yukon River, latitude 62° 45′) to California (southern boundary); eastward through British Columbia, Saskatchewan, and Manitoba to Lake Superior (western shores), northern Michigan, Nebraska, Colorado, and New Mexico (Rocky Mountains).

NAMES IN USE.—Pigeon-berry (So. Oreg.); Serviceberry; Western Serviceberry; "Sarvice" (Wyo.).

CRATÆGUS Linn.

Cratægus douglasii Lindl. **Black Haw.**

RANGE.—From British Columbia (Parsnip River) through Washington and Oregon to California (Pitt River), and through Idaho and Montana (Flathead River at western base of Rocky Mountains).

NAMES IN USE.—Thorn Apple (Cal., Utah, Wash., Idaho, Nev.); Hawthorn (Cal.); Black Haw (Mont.); Western Haw (Oreg.); Thorn (N. Mex., Mont., Idaho); Haw (Oreg.); Black Thorn (Idaho, Utah, Wash.); Western Hawthorn (Utah); River Hawthorn (Utah); Wild Hawthorn (Utah); Thorn-tree; Wild Thorn (Oreg.).

Cratægus brachyacantha Sarg. & Engelm. **Hog Haw.**

RANGE.—Northwestern Louisiana (valley of Bayou Dorcheat) and western Louisiana to eastern Texas (Sabine River).

NAMES IN USE.—Hog's Haw (La.); Red Haw (La.); Pomette Bleue (La.).

Cratægus saligna Greene. **Willow Haw.**

RANGE.—Lower Cimarron River, Colorado.

Cratægus crus-galli Linn. **Cockspur.**

RANGE.—From the St. Lawrence River to Lake Erie (north shores) and southward to western Florida (Chipola River); westward to Missouri and Texas (Colorado River).

NAMES IN USE.—Cockspur Thorn (Vt., N. H., R. I., N. Y., N. J., Pa., Del., W. Va., N. C., S. C., Ala., Fla., Miss., Mo., Ill., Kans., Ont.); Red Haw (Tex., Ill., Mich., Miss.); Newcastle Thorn (Del., Miss.); Thorn Apple (N. Y., W. Va.); Thorn Bush (Pa.); Thorn (Pa., Ky.); Pin Thorn (W. Va.); Thorn Plum (Me.); Cockspur Hawthorn (Pa.); Hawthorn (Pa.); Haw (S. C.).

Cratægus crus-galli salicifolia (Medic.) Ait.

Willowleaf Cockspur.

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Cratægus crus-galli prunellifolia (Poir.) Sudw.
Broadleaf Cockspur.

Cratægus crus-galli angustifolia (Ehr.) Sudw.
Narrowleaf Cockspur.

Cratægus crus-galli prunifolia (Marsh.) Torr. & Gr.
Plumleaf Cockspur.

Cratægus crus-galli fontanesiana (Spach) Wenz.

Cratægus crus-galli berberifolia (Torr. & Gr.) Sarg.
Barberryleaf Cockspur.

RANGE.—South Atlantic States, and in western Louisiana and eastern Texas.

Cratægus coccinea Linn. **Scarlet Haw.**

RANGE.—From Newfoundland (western shores) through Quebec and Ontario west through Winnipeg nearly to the eastern base of the Rocky Mountains; south to northern Florida, and west to eastern Texas, Nebraska, and Kansas.

NAMES IN USE.—Scarlet Haw (N. H., Mass., N. Y., N. J., Pa., N. C., S. C., Miss., Ark., Mo., Ill., Nebr., Iowa, Minn.); Red Haw (R. I., N. Y., W. Va., S. C., Ga., Miss., La., Tex., Mo., Ill., Nebr., Ohio, Iowa, Minn., S. Dak.); White Thorn (Vt., R. I., Del., Miss., Iowa, Ill., Kans., Minn., Ont.); Scarlet Thorn (Vt., Mass., R. I., N. J., Del., Ont.); Scarlet-fruited Thorn (Mich., Minn.); Red Thorn (Ky.); Hawthorn (Pa., Iowa); Thorn (Vt., N. Y., Ky., Mont.); Thorn Bush (R. I., Pa.); Thorn Apple (Vt., Mont.); Thorn Apple-tree (Minn.); Thorn Plum (Me., Vt., N. Y.); Haw Bush (Mont.); Scarlet Thorn-Haw (Fla.); Hedge Thorn (Mont.); Red Thorn Bush (Ky., Ind.).

Cratægus macracantha (Lindl.) Loud. **Longspine Haw.**

RANGE.—Eastern Massachusetts, Maine (coast), northern New Hampshire and Vermont, Quebec, and west through Winnipeg, southern Michigan, Missouri, southwestern Colorado and New Mexico (Rocky Mountains), eastern Oregon and Washington (eastern slopes Cascade Mountains).

Cratægus mollis (Torr. & Gr.) Scheele. **Downy Haw.**

CRATÆGUS TOMENTOSA var. MOLLIS Gray.

RANGE.—From Massachusetts (Bay) to northern New England and Quebec, and west through southern Michigan (as far north as Roscommon County) to Missouri, and through middle Tennessee to northern Alabama, and through Arkansas to Texas (San Antonio River); Mexico (Sierra Madre, near Saltillo).

NAMES IN USE.—Scarlet Haw; Red Thorn-apple (Mich.).

Cratægus oxyacantha Linn. **English Hawthorn.**

RANGE.—Europe. Widely cultivated, and naturalized in a few localities in the Eastern United States.

VARIETIES DISTINGUISHED IN CULTIVATION.

Cratægus oxyacantha oxyacanthoides (Thuill.) Reich.
Cratægus oxyacantha monogyna (Jacq.) Loud.
Cratægus oxyacantha laciniata (Borkh.) de C.
Cratægus oxyacantha diversifolia (Poir.) Sudw.
Cratægus oxyacantha incisa Regel.
Cratægus oxyacantha auriculata Dipp.
Cratægus oxyacantha sorbifolia (Desf.) Dipp.
Cratægus oxyacantha pinnatiloba (Lange.) Sudw.
Cratægus oxyacantha ferox Dipp.
Cratægus oxyacantha curtispina Sudw.

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Cratægus oxyacantha flexuosa Loud.
Cratægus oxyacantha stricta Loud.
Cratægus oxyacantha pendula Loud.
Cratægus oxyacantha aurea Loud.
Cratægus oxyacantha variegata (Dipp.) Sudw.
Cratægus oxyacantha splendens (Koch) Sudw.
Cratægus oxyacantha eriocarpa Loud.
Cratægus oxyacantha oliveriana (Poir.) Loud.
Cratægus oxyacantha aurantiaca Loud.
Cratægus oxyacantha leucocarpa Loud.
Cratægus oxyacantha apetala Loud.
Cratægus oxyacantha præcox Loud.
Cratægus oxyacantha multiplex Loud.
Cratægus oxyacantha rosea Loud.
Cratægus oxyacantha punicea Loud.
Cratægus oxyacantha punicea plena Sudw.
Cratægus oxyacantha semperflorens Dipp.
Cratægus oxyacantha gratanensis (Boiss.) Sudw.
Cratægus oxyacantha macrocarpa (Hegetsch.) Sudw.

Cratægus tomentosa Linn. **Pear Haw.**

RANGE.—From New York (Hudson River near Troy) to eastern Pennsylvania (Chestnut Hill); west through central New York to Michigan (as far north as Roscommon County) and Missouri; Allegheny Mountains from northern Georgia to Middle Tennessee (near Nashville); through Arkansas to eastern Texas (near Dallas).

NAMES IN USE.—Black Thorn (R. I., N. J., Pa., Del., Ga., Fla., La., Miss., Ky., Ill., Ind., Ohio); Pear Haw (Miss., Ohio); Red Haw (Miss., Mo.); Pear Thorn (R. I., N. J., Mich.); White Thorn; Thorn (N. Y., Ky.); Common Thorn (Pa.); Hawthorn; Thorn-apple (Ill.); Thorn Plum.

Cratægus punctata Jacq. **Dotted Haw.**

CRATÆGUS TOMENTOSA var. PUNCTATA Gray.

RANGE.—From Quebec (Chateaugay River near Montreal) to Ontario (Detroit River); northern New Hampshire and Vermont and south through southern Michigan and western Massachusetts to Middle Tennessee, and along Appalachian Mountains to northern Georgia and Alabama.

NAME IN USE.—Dotted-fruited Thorn (lit.).

Cratægus punctata canescens Britton. **White Dotted Haw.**

RANGE.—Vermont (Ferrisburg).

VARIETY DISTINGUISHED IN CULTIVATION.

Cratægus punctata xanthocarpa (Medic.) Lav. **Yellowfruit Dotted Haw.**

Cratægus spathulata Michx. **Spatulate Haw.**

RANGE.—Coast region from southern Virginia to northern Florida and west to Arkansas (Hot Springs) and Texas (Colorado River).

Cratægus cordata (Mill.) Ait. **Washington Haw.**

RANGE.—From Pennsylvania (Lebanon County) and Virginia (upper Potomac River) south in Appalachian foothills region to northern Georgia; west to Middle Tennessee, Kentucky, and southern Illinois (lower Wabash River).

NAMES IN USE.—Washington Thorn (N. J., Pa., Del., N. C., S. C., Ill.); Virginia Thorn (Del.); Heart-leaved Thorn (Tenn.); Thorn (Ky.); Red Haw.

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Cratægus viridis Linn. **Green Haw.**

RANGE.—From South Carolina (Savannah River) to western Florida (Chattahoochee River); Alabama (mountain region to coast plain); from the Mississippi River (up to near St. Louis) to Texas (Colorado River).

NAMES IN USE.—Tree Haw (Ala., Miss., La., S. C.); Red Haw (Ala., Miss., La.); Haw (Ala.); Senellier (La.); Tree Thorn (Fla.).

Cratægus apiifolia (Marsh.) Michx. **Parsley Haw.**

RANGE.—Coast region from southern Virginia to central Florida, and west in the Gulf region to southern Arkansas and Texas (Trinity River).

NAMES IN USE.—Parsley Haw (N. C., Ala., Fla., Miss., La.); Red Haw (Miss.); Parsley-leaved Haw (S. C.).

Cratægus flava Ait. **Yellow Haw.**

RANGE.—Coast region from southern Virginia (in North Carolina to western slopes of the Allegheny Mountains) to Florida (Tampa Bay); west through Alabama (mountain region to coast pine belt) and Mississippi.

NAMES IN USE.—Haw (Fla.); Yellow Haw (Fla.); Red Haw.

Cratægus elliptica Ait. **Downy Yellow Haw.**

RANGE.—Middle districts of North Carolina, South Carolina, and Georgia to the coast plain of Alabama.

NAME IN USE.—Summer Haw (S. C., Ga.).

Cratægus uniflora Muenchh. **Small-leaf Haw.**

CRATÆGUS PARVIFOLIA Solander in Ait.

RANGE.—From New Jersey (Delaware River) to Florida and west in the Gulf States to Louisiana and southern Arkansas.

Cratægus æstivalis (Walt.) Torr. & Gr. **Summer Haw.**

RANGE.—Coast region from South Carolina (Savannah River) to northern Florida and west in the Gulf States to Texas (Sabine River).

NAMES IN USE.—May Haw (Tex.); Apple Haw (Fla.); Summer Haw (Fla.).

HETEROMELES Roem.

Heteromeles arbutifolia (Poir.) Roem. **Christmas-berry.**

RANGE.—Through California (coast region from Mendocino County) and islands to Lower California; inland to Sierra Nevada and San Bernardino mountains.

NAMES IN USE.—California Holly (Cal.); Christmas-berry (Cal.); Chamiso (Cal.); Toyon (Cal.); Tollon (Cal.).

CHRYSOBALANUS Linn.

Chrysobalanus icaco Linn. **Cocoa Plum.**

RANGE.—Southern Florida (on the east coast from Cape Canaveral to Biscayne Bay, and on the west coast from Caximbas Bay to the southern keys); shores of West Indies, southern Mexico, and Central America; South America (northern and eastern coast to southern Brazil); Africa (west coast from Senegambia to Congo country).

NAMES IN USE.—Cocoa Plum (Fla.); Gopher Plum (Fla.).

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PRUNUS Linn.

Prunus nigra Ait. **Canada Plum.**

RANGE.—From Newfoundland through the St. Lawrence River valley to Manitoba (Rainy and Assiniboine rivers and Lake Manitoba). By cultivation, naturalized in parts of Michigan, northern New England, New York, and eastern Massachusetts, and may also be looked for in northern Wisconsin and Minnesota.

NAMES IN USE.—Canada Plum (Mass., N. Y., Mich., Ont.); Red Plum (Me., Vt., Ont., Mich.); Horse Plum (Me., Vt.); Wild Plum (Me., Mass., Vt., N. Y.).

Prunus americana Marsh. **Wild Plum.**

RANGE.—From middle and northern New Jersey and central New York to Montana (Missouri River), Nebraska, Colorado (eastern base Rocky Mountains), southern New Mexico (Rio Grande River), and south to western Florida; northeastern Mexico (mountains).

NAMES IN USE.—Wild Plum (R. I., N. J., Del., Pa., Va., W. Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Tex., Ky., Mo., Ark., Ill., Ind., Ohio, Mich., Ont., Kans., Nebr., Iowa, Colo.); Yellow Plum (N. Y., Del., Pa., Miss., Nebr.); Red Plum (Del., Pa., N. C., Miss., La., Nebr.); Horse Plum (Miss., Ark., Colo.); Hog Plum (Colo., Mo.); August Plum (S. C.); Native Plum (Iowa); Plum (Ill.); Plum Granite; Goose Plum (Ind.); Sloe (Fla.).

Prunus americana lanata Sudworth. **Woollyleaf Plum.**

RANGE.—Missouri to northern Mexico.

Prunus hortulana Bailey. **Garden Wild Plum.**

RANGE.—Illinois (near Oquawka on Mississippi River); Missouri (near St. Louis; Maramec River); middle Tennessee (near Lebanon and Lewisburg). Range imperfectly known and may be looked for from southern Illinois and Indiana to eastern Texas.

NAMES IN USE.—Wild Goose Plum (Tenn.); Goose Plum (Tenn.).

Prunus hortulana mineri Bailey. **Miner Plum.**

NAME IN USE.—Goose Plum (Tenn.).

Prunus angustifolia Marsh. **Chickasaw Plum.**

PRUNUS CHICASA Michx.

RANGE.—Natural range uncertain. Widely naturalized from southern Delaware and Kentucky to eastern Kansas and south to central Florida and eastern Texas. Appears like a tree escaped from cultivation.

NAMES IN USE.—Chickasaw Plum (Del., W. Va., N. C., Ga., Fla., Ala., La., Tex., Miss., Ill., Kans.); Hog Plum (Miss., Tex.); Wild Red Cherry (La.); Mountain Cherry; Yellow Plum (Fla.).

Prunus allegheniensis Porter. **Allegheny Sloe.**

RANGE.—Central Pennsylvania (Tusseys Mountain, Huntingdon County; Bald Eagle Mountain and valley, and Alleghenies in Clearfield and Elk counties).

Prunus subcordata Benth. **Pacific Plum.**

RANGE.—Southern Oregon to central California (west of the Cascades and Sierra Madre mountains).

NAME IN USE.—Wild Plum.

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Prunus umbellata[1] Ell. **Black Sloe.**

RANGE.—Coast region from South Carolina to Florida (Mosquito Inlet on the east coast, and on the west coast from Tampa Bay) west to eastern Mississippi; in Louisiana (Mississippi River near Baton Rouge and Red River from Alexandria to Shreveport) to southern Arkansas (near Camden).

NAMES IN USE.—Black Sloe (S. C., Ga., Ala., Miss.); Southern Bullace Plum (S. C., Ala., Miss.); Hog Plum (Fla.); Wild Plum (Fla.); Sloe.

Prunus emarginata (Dougl.) Walp. **Bitter Cherry.**

RANGE.—From Montana (upper Jocko River) through the mountains of Idaho and Washington, and southern British Columbia to Vancouver Island; south through western Washington, Oregon, and northern California (on coast ranges, to near San Francisco Bay); southward in California (on western slopes Sierra Nevada to the Yosemite Valley, and on eastern slopes Sierras to Lake Tahoe and vicinity of Carson City, Nev.); also on Santa Lucia Mountains; Nevada (Washoe Mountain).

NAMES IN USE.—Wild Plum (Cal.); Bitter Cherry (Idaho, Cal.); Wild Cherry.

Prunus emarginata villosa Sudworth. **Woollyleaf Cherry.**

PRUNUS EMARGINATA var. MOLLIS Brewer, not Torr.

RANGE.—Southern California (San Bernardino Mountains).

Prunus pennsylvanica Linn. f. **Wild Red Cherry.**

RANGE.—From Newfoundland and Labrador (Strait of Bellisle) northward to Hudson Bay (near Big River), south Indian Lake, and west to British Columbia (eastern slopes coast ranges in valley Fraser River); south to Pennsylvania and along the Allegheny Mountains to western North Carolina and eastern Tennessee, to Michigan (as far south as Ionia County), northern Illinois, central Iowa; Colorado (eastern slopes of Rocky Mountains).

NAMES IN USE.—Wild Red Cherry (Me., Vt., N. H., Mass., R. I., Conn., N. Y., N. J., Pa., Va., N. C., Mich., Ont., Ill., Wis., Iowa, Minn., N. Dak.); Pin Cherry (N. H., Vt., N. Y., Mich., Iowa, N. Dak.); Pigeon Cherry (Vt., N. H., R. I., N. Y., Ont., N. Dak.); Wild Cherry (N. Y., Tenn.); Bird Cherry (Me., N. H., N. Y., Pa., Minn., Iowa); Red Cherry (Me., R. I.); Fire Cherry (N. Y.).

Prunus cerasus Linn. **Sour Cherry.**

RANGE.—Europe. Escaped from cultivation and running wild in various localities in eastern United States.

Prunus mahaleb Linn. **Mahaleb Cherry.**

RANGE.—Europe. Escaped from cultivation and running wild in southern New York and eastern Pennsylvania.

Prunus avium Linn. **Sweet Cherry.**

RANGE.—Europe. Escaped from cultivation and running wild in various localities in eastern United States.

Prunus virginiana Linn. **Choke Cherry.**

RANGE.—From Labrador and Hudson Bay region to the Mackenzie River (latitude 62°) and northern British Columbia (coast region); south to southern Georgia, Louisiana, Texas, and northern Mexico.

NAMES IN USE.—Choke Cherry (Mich., Wis.); Wild Cherry.

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[1] Dr. J. K. Small has recently described the following new species: *Prunus injucunda* Small, in Bull. Torr. Bot. Club, vol. 25, p. 149, 1898. Detected on Stone Mountain and Little Stone Monntain, Georgia. Said to be a tree 15 to 20 feet high, and formerly confused with *Prunus umbellata*. I have not seen specimens of this species.

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VARIETIES DISTINGUISHED IN CULTIVATION.

Prunus virginiana leucocarpa Wats.	**White-fruit Choke Cherry.**
Prunus virginiana pendens Sudw.	**Weeping Choke Cherry.**
Prunus virginiana nana (Du Roi) Dipp.	**Dwarf Choke Cherry.**

Prunus demissa (Nutt.) Walp. **Western Choke Cherry.**

RANGE.—Rocky Mountains to the Pacific (in United States).

NAMES IN USE.—Wild Cherry (Cal., N. Mex., Utah, Idaho, Mont., Oreg.); Choke Cherry (Cal., Nev., Idaho, Utah); California Cherry (Cal.); Western Choke Cherry.

Prunus serotina Ehrh. **Black Cherry.**

RANGE.—From Nova Scotia westward through Canadian Provinces to the Kaministiquia River; south to Florida (Matanzas Inlet and Tampa Bay) and west to North Dakota (Missouri River), eastern Nebraska and Kansas, Indian Territory, and eastern Texas; western Texas (mountains).

NAMES IN USE.—Wild Black Cherry (Vt., Mass., R. I., N. Y., N. J., Del., Pa., N. C., Ala., Miss., La., Ky., Mo., Ill., Iowa, Wis., Kans., Nebr., Minn., Ohio, S. Dak. (cult.), Ont.); Wild Cherry (Conn., N. J., Pa., Del., W. Va., N. C., S. C., Ala., Fla., Tex., Ark., Ky., Ind., Ill., Iowa, Wis.); Black Cherry (Me., N. H., Vt., R. I., N. Y., Miss., Ky., Mich., Wis., Ind., Nebr.); Rum Cherry (N. H., Mass., R. I., Miss., Nebr.); Whisky Cherry (Minn.); Choke Cherry (Mo., Wis., Iowa).

Prunus serotina neomontana Sudworth. **Mountain Black Cherry.**

RANGE.—Southwestern Virginia ("balds" on White Top Mountain); Alabama (Talladega and Clay counties).

VARIETIES DISTINGUISHED IN CULTIVATION.

Prunus serotina penduliformis Sudw.	**Weeping Black Cherry.**
Prunus serotina asplenifolia Dipp.	**Fernleaf Black Cherry.**

Prunus salicifolia H. B. K. **Willowleaf Cherry.**

PRUNUS CAPULI Cav.

RANGE.—Southern New Mexico and Arizona (mountains); Mexico (mountains); Central America (Pacific coast region); Colombia and Peru.

NAMES IN USE.—Mexican Cherry-tree; Mexican Cherry.

Prunus caroliniana (Mill.) Ait. **Laurel Cherry.**

RANGE.—Coast region and islands (15 to 20 miles inland) from South Carolina (Cape Fear River) to Florida (Biscayne Bay and Kissimmee River); west in the Gulf region through southern Alabama, Mississippi, Louisiana, and Texas (to Guadalupe River).

NAMES IN USE.—Wild Peach (Miss., La., Tex.); Wild Orange (N. C., S. C., Miss., Tex.); Mock Orange (N. C., S. C., Ala., Miss., La., Tex.); Laury Mundy (La.); Laurii amande (La.); Cherry Laurel (Fla.); Evergreen Cherry (Tex.); Mock Olive (Fla.); Carolinian Cherry (lit.); Laurel Cherry.

Prunus sphærocarpa Swartz. **West India Cherry.**

RANGE.—Florida (Biscayne Bay); West Indies; Brazil.

NAME IN USE.—West India Cherry (Fla.).

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Prunus ilicifolia (Nutt.) Walp. **Hollyleaf Cherry.**

RANGE.—California (from San Francisco Bay through the coast ranges, also on western slopes of San Bernardino Mountains and on Santa Cruz and Santa Rosa islands) to Lower California (San Julio Canyon).

NAMES IN USE.—Spanish Wild Cherry (Cal.); Islay (Cal.); Evergreen Cherry (Cal.); Holly-leaved Cherry (Cal.); Oakleaf Cherry (Cal.); Holly Cherry (Cal.); Wild Cherry (Cal.); Holly (Cal.); Mountain Evergreen Cherry (Cal.).

Prunus icilifolia integrifolia Sudworth. **Entire-leaf Cherry.**

RANGE.—California (coast islands and mainland).

Prunus persica (Linn.) Stokes. **Peach.**

RANGE.—China. Escaped from cultivation and running wild in various localities in the United States, especially in the Middle and South Atlantic region.

Family LEGUMINOSÆ.

ZYGIA Browne.

Zygia unguis-cati (Linn.) Sudworth. **Florida Catsclaw.**

PITHECOLOBIUM UNGUIS-CATI Benth.

RANGE.—Florida (Caximbas Bay) and southern keys; West Indies to Venezuela and New Granada.

NAMES IN USE.—Cat's Claw (Fla.); Long Pod (Fla.).

Zygia brevifolia (Benth.) Sudworth. **Huajillo.**

PITHECOLOBIUM BREVIFOLIUM Benth.

RANGE.—Texas (Lower Rio Grande River from Rio Grande City to mouth of the river); Mexico (mouth of Rio Grande River to Sierra Madre Mountains, etc.).

Zygia flexicaulis (Benth.) Sudworth. **Texan Ebony.**

ACACIA FLEXICAULIS Benth.

RANGE.—Gulf coast of Texas (from Matagorda Bay) to Mexico (Sierra Madre Mountains in Nuevo Leon); Lower California (La Paz).

LYSILOMA Benth.

Lysiloma latisiliqua (Linn.) Benth. **Wild Tamarind.**

RANGE.—Florida keys—Largo, Elliotts, Plantation, Boca Chica; Bahamas; West Indies.

NAME IN USE.—Wild Tamarind (Fla.).

ACACIA Adans.

Acacia farnesiana (Linn.) Willd. **Huisache.**

RANGE.—Native in America (from Rio Grande River to northern Chile); Australia (northeastern and north central); Africa (subtropical); naturalized in West Indies, Guiana, Brazil, Argentina, Africa (northern and north-tropical), India, China (southern), Indian Archipelago, and islands of Pacific Ocean. Widely cultivated and naturalized from the Gulf coast region to southern California.

NAMES IN USE.—Huisache (Tex.); Cassie (Tex.).

Acacia wrightii Benth. **Texas Catsclaw.**

RANGE.—Western Texas (from the Guadalupe River) to Mexico (Sierra Madre Mountains in Nuevo Leon).

NAME IN USE.—Cat's Claw (Tex.).

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Acacia greggii Gray. **Devils Claw.**

RANGE.—From Western Texas (Rio Grande River) through southern New Mexico and Arizona to southern California.

NAMES IN USE.—Cat's Claw (Tex., Cal., Ariz.); Paradise Flower (N. Mex.); Devil's Claws (Nev.); Ramshorn; Uña de Gato.

LEUCÆNA Hooker.

Leucæna glauca (Linn.) Benth. **Leucæna.**

RANGE.—Western Texas (from San Saba to Devils River); Florida (Key West); Mexico; West Indies and Bahamas; South America (down to southern Brazil); tropical Africa and Asia. Native range uncertain; established mostly by cultivation.

Leucæna pulverulenta (Schlecht.) Benth. **Chalky Leucæna.**

RANGE.—Texas (few miles above mouth of Rio Grande River); Mexico (from Matamoras to Monterey in Nuevo Leon; Misantla River, near San Antonio; at Orizaba and Cordova, near city of Mexico).

NAME IN USE.—Mimosa.

PROSOPIS Linn.

Prosopis odorata Torr. & Frem. **Screwbean.**

PROSOPIS PUBESCENS Benth.

RANGE.—Western Texas (valley of Rio Grande River, from Devils River to El Paso); west through New Mexico, Arizona, southern borders of Utah and Nevada to California (arid region of Colorado Basin to San Diego County); northern Mexico.

NAMES IN USE.—Screwbean (Tex., Utah, N. Mex., Ariz., Nev., Cal.); Screw-Pod Mesquite (Tex., Utah, Ariz., N. Mex., Nev., Cal.); Tornillo (Tex., Utah, N. Mex., Ariz., Nev.); Mescrew (Nev.); Screwbean Mesquite (Ariz.).

Prosopis juliflora (Swartz) de C. **Mesquite.**

RANGE.—From the southern border of Indian Territory and northern and western Texas (eastern limit defined by a line from the intersection of latitude 37° with the one hundredth meridian to Dallas; thence south to the Colorado River and southwestward within 20 or 30 miles of the Gulf, which is reached near the mouth of the Rio Grande River) into northern Mexico. Also from the southern borders of Colorado and Utah through New Mexico, Arizona, and southern Nevada to southern California (western limit defined by a line from Tejon Pass over Los Angeles to San Pedro); in Lower California; western South America (Andean region to Chile); Argentina and southern Brazil; Jamaica.

NAMES IN USE.—Mesquite (Tex., N. Mex., Ariz., Cal.); Algaroba (Tex., N. Mex., Ariz., Cal.); Honey Locust (Tex., N. Mex); Honey Pod (Tex.); Ironwood (Tex.).

CERCIS Linn.

Cercis canadensis Linn. **Redbud.**

RANGE.—From New Jersey (Delaware River) and southern Michigan (Grand and Raisin rivers) to Florida (Tampa Bay), northern Alabama (Tennessee River to Madison, Monte Sano, Cullman, Tuscaloosa) and Mississippi; west to Missouri, eastern borders of Indian Territory, Louisiana, Texas (Brazos River); Mexico (Sierra Madre in Nuevo Leon).

NAMES IN USE.— Redbud (Mass., N. Y. (cult.), N. J., Pa., Del., D. C., Va., W. Va., N. C., S. C., Ala., Fla., Ark., Miss., La., Tex., Mo., Ill., Ind.,

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Mich. (cult.); Judas-tree (Mass., R. I., N. Y. (cult.), N. J., Del., Pa., D. C., Va., N. C., S. C., Miss., La., Tex., Ky., Ill., Ind., Ohio., Mich., Minn. (cult.); Red Judas-tree; Salad-tree (Del.); Canadian Judas-tree (lit.).

Cercis canadensis pubescens Pursh. **Downy Redbud.**

RANGE.—Type locality, "Georgia;" westward.

VARIETY DISTINGUISHED IN CULTIVATION.

Cercis canadensis plena Sudw. **Double-flower Redbud.**

Cercis reniformis Engelm. **Texas Redbud.**

RANGE.—Eastern Texas (from near Dallas) to Mexico (Sierra Madre in Nuevo Leon).

NAMES IN USE.—Redbud (Tex.); Texas Redbud.

GLEDITSIA Linn.

Gleditsia triacanthos Linn. **Honey Locust.**

RANGE.—From Pennsylvania (western slopes Allegheny Mountains) west through southern Ontario (Pelee Island, Lake Erie), southern Michigan (up to River Raisin) to eastern Nebraska and Kansas, Indian Territory (to longitude 96°); south to Georgia and through Alabama, Mississippi, and Texas (to Brazos River). Range more or less extended elsewhere by seeding from cultivated trees.

NAMES IN USE.—Honey Locust (Vt., N. H., Mass., R. I., N. Y., N. J., Pa., Del., D. C., Va., W. Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Tex., Ark., Ky., Mo., Ohio, Ill., Ind., Kans., Nebr., Mich., Iowa); Black Locust (Miss., Tex., Ark., Kans., Nebr.); Sweet Locust (S. C., La., Kans., Nebr.); Three-thorned Acacia (Mass., R. I., La., Tex., Nebr., Mich., Ont.); Thorn Locust (N. Y., Ind., La.); Thorntree (N. Y., Ind., La.); Thorny Locust (N. J.); Locust (Nebr.); Honey (R. I., N. J., Iowa); Honey Shucks (R. I., N. J., Va., Fla., Iowa); Thorny Acacia (Tenn.); Honey-Shucks Locust (Ky.); Piquant Amourette (La.); Confederate Pintree (Fla).

Gleditsia triacanthos lævis (Loud.) Sudworth. **Thornless Honey Locust.**

GLEDITSIA TRIACANTHOS, var. INERMIS Willd.

Gleditsia triacanthos brachycarpos Michx. **Short-pod Honey Locust.**

VARIETY DISTINGUISHED IN CULTIVATION.

Gleditsia triacanthos bujotii (Neum.) nom. nov. **Bujot Locust**

GLEDITSIA BUJOTII Neumann.

Gleditsia aquatica Marsh. **Water Locust.**

GLEDITSIA MONOSPERMA Walt.

RANGE.—Coast region, from South Carolina to Florida (Matanzas Inlet and Tampa Bay), from which it extends along the Gulf coast to Texas (Brazos River); northward through western Louisiana and southern Arkansas, southern Missouri, middle and west Tennessee and Kentucky, southern Illinois, and Indiana.

NAME IN USE.—Water Locust (Fla., La., Tex., Mo., Ind., Ill.).

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GYMNOCLADUS Lam.

Gymnocladus dioicus (Linn.) Koch. **Coffeetree.**

GYMNOCLADUS CANADENSIS Lam.

RANGE.—New York (Cayuga and Seneca lakes); Pennsylvania (Conococheague Creek, Franklin County), and west through southern Ontario (Pelee Island, Lake Erie), southern Michigan (Maple River, in Clinton County; Fish Creek, in Montcalm County; Grand River), to Minnesota (Minnesota River), eastern Nebraska, eastern Kansas, southwestern Arkansas, Indian Territory (longitude 96°); southward, mainly between the Mississippi River and Allegheny Mountains, to Tennessee (upper eastern section and middle section, near Nashville). Range somewhat extended elsewhere by seeding from cultivated trees.

NAMES IN USE.—Kentucky Coffeetree (Mass., R. I. (cult.), N. Y., Pa. (cult.), Del., Va., W. Va., N. C., Miss., Ark., Mo., Ill., Kans., Ont., Mich., Iowa); Coffeenut (Ky., Mo., Ill., Ind., Nebr.); Coffeetree (W. Va., Ark., Ky., Nebr.); Coffeebean (Ill., Kans., Nebr.); Coffeebean-tree (Ky., Ark.); Mahogany (N. Y.); Virgilia (Tenn.); Nickertree (Tenn.); Stumptree (Tenn.).

PARKINSONIA Linn.

Parkinsonia aculeata Linn. **Horse-bean.**

RANGE.—Texas (lower Rio Grande River); Arizona and California (in valley of Colorado River); northern Mexico and Lower California.

NAMES IN USE.—Horse-bean; Retama (Tex.).

Parkinsonia microphylla Torr. **Small-leaf Horse-bean.**

RANGE.—Southern Arizona (desert region); southern California (desert region adjoining Arizona); Lower California (adjoining California); Mexico (Sonora).

NAMES IN USE.—Desert Bush; Jerusalem Thorn; Palo Verde (Cal.).

CERCIDIUM Tulasne.

Cercidium floridum Benth. **Greenbark Acacia.**

RANGE.—Western Texas (Matagorda Bay to Hidalgo County) to Mexico (mouth of Rio Grande River to foothills of Sierra Madre; also near Monterey).

NAMES IN USE.—Green-barked Acacia (Ariz.); Palo Verde (Tex., Ariz., N. Mex.); Acacia.

Cercidium torreyanum (Wats.) Sargent. **Palo Verde.**

PARKINSONIA TORREYANA Wats.

RANGE.—Southern California (Colorado Desert) and Arizona (lower Gila River Valley) and south into Mexico (Sonora) and Lower California.

NAMES IN USE.—Green-barked Acacia; Palo Verde.

SOPHORA Linn.

Sophora secundiflora (Cav.) de C. **Frijolito.**

RANGE.—Southern Texas (Matagorda Bay) to New Mexico (mountain canyons) and southward into Mexico (mountain canyons of Nuevo Leon and San Luis Potosi).

NAMES IN USE.—Coral Bean; Frijolito (Tex.).

Sophora affinis Torr. & Gr. **Sophora.**

RANGE.—Arkansas (from Arkansas River) to Texas (San Antonio River and westward to the upper Colorado River).

NAMES IN USE.—Pink Locust (Tex.); Beaded Locust (Tex.).

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CLADRASTIS Raf.

Cladrastis lutea (Michx. f.) Koch. **Yellow-wood.**

CLADRASTIS TINCTORIA Raf.

RANGE.—Central Kentucky (Kentucky and Dick rivers); middle Tennessee (near Nashville) and eastern Tennessee (Great Smoky Mountains in Cocke and Sevier counties); North Carolina (Cherokee County); Alabama (Tennessee River Valley, near Colbert, Sheffield Landing).

NAMES IN USE.—Yellow-wood (Tenn., N. C.); Yellow Locust (Ky., Tenn.); Yellow Ash; Gopherwood (Tenn.).

EYSENHARDTIA H. B. K.

Eysenhardtia orthocarpa (Gray) Wats. **Eysenhardtia.**

RANGE.—From western Texas (upper Guadalupe River) to southern Arizona (Santa Catalina and Santa Rita mountains) and south into Mexico (to southwestern Chihuahua and to near San Luis Potosi).

DALEA Willd.

Dalea spinosa Gray. **Indigo Thorn.**

RANGE.—Southern California (Colorado Desert—at Agua Caliente and Toras) and eastward into Arizona (to lower Gila River); south into adjacent Mexico (Sonora) and Lower California (to Calamujuet).

NAMES IN USE.—Dalea (Cal.); Indigo Bush (Cal.).

ROBINIA Linn.

Robinia pseudacacia Linn. **Locust.**

RANGE.—From Pennsylvania (on the Appalachian Mountains from Locust Ridge in Marion County) to northern Georgia. Widely naturalized through cultivation and other agencies throughout the United States east of the Rocky Mountains; possibly indigenous in parts of Arkansas (Crowleys Ridge, etc.) and eastern Indian Territory; also in the Great Smoky Mountains of eastern Tennessee (Sevier County).

NAMES IN USE.—Locust (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., W. Va., N. C., S. C., Ga., Ala., Miss., Tex., Ky., Ark., Ariz., Ill., Wis., Ohio, Ind., Kans., Nebr., Mich., Iowa, Minn.); Black Locust (Pa., Va., W. Va., N. C., S. C., Ala., Miss., La., Tex., Ark., Ky., Mo., Ill., Ohio, Ind., Iowa, Kans., Nebr., Mich., Minn.); Yellow Locust (Vt., Mass., N. Y., Pa., Del., Va., W. Va., Miss., La., Ill., Ind., Kans., Nebr., Minn.); White Locust (R. I., N. Y., Tenn.); Red Locust (Tenn.); Green Locust (Tenn.); Acacia (La.); False Acacia (S. C., Ala., Tex., Minn.); Honey Locust (Minn.); Bastard Acacia (lit.); Pea-flower Locust; Post Locust (Md.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Robinia pseudacacia decaisneana Carr.	**Pink Locust.**
Robinia pseudacacia crispa de C.	**Crinkleleaf Locust.**
Robinia pseudacacia amplifolia Sudw.	**Broadleaf Locust.**
Robinia pseudacacia angustifolia (Loud.) Lav.	**Smallleaf Locust.**
Robinia pseudacacia monophylla Petz. & Kirchn.	**Simpleleaf Locust.**
Robinia pseudacacia tortuosa (Hoffm.) de C.	**Twistbranch Locust.**

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Robinia pseudacacia pyramidalis Petz. & Kirchn. — **Pyramid Locust.**
Robinia pseudacacia pendula (Ortega) Loud. — **Weeping Locust.**
Robinia pseudacacia inermis (Jacq.) Sudw. — **Parasol Locust.**
Robinia pseudacacia spectabilis (Du Mont Cour.) Koch. — **Thornless Locust.**
Robinia pseudacacia latisiliqua Loud. — **Broadpod Locust.**
Robinia pseudacacia dissecta (Koch) Sarg. — **Cutleaf Locust.**
Robinia pseudacacia glaucescens Koch. — **Blue Locust.**
Robinia pseudacacia aurea (Koch) Dipp. — **Goldenleaf Locust.**
Robinia pseudacacia purpurea Dipp. — **Purpleleaf Locust.**
Robinia pseudacacia argenteo-variegata (Koch) Sudw. — **Spotted Locust.**

Robinia neo-mexicana Gray. — **New-Mexican Locust.**

RANGE.—Colorado (from Purgatory River) through northern New Mexico and Arizona (to Santa Catalina and Santa Rita mountains) and to southern Utah (near Kanah and in Mount Zion Canyon, west fork of Rio Virgen River).

NAME IN USE.—Locust (Ariz., N. Mex.).

Robinia viscosa Vent. — **Clammy Locust.**

RANGE.—Mountains of North Carolina. Widely naturalized by cultivation east of the Mississippi River.

NAMES IN USE.—Clammy Locust (Mass., R. I., N. Y., N. J., Pa., N. C., S. C., La., Miss., Ill.); Honey Locust (N. Y., N. J.); Red-flowering Locust (Ala.); Rose-flowering Locust (Tenn.); Rose Acacia (Vt., R. I., Pa.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Robinia viscosa albiflora Dipp. — **White-flower Clammy Locust.**
Robinia dubia Fouc.
Robinia bella-rosea Nichol.

OLNEYA Gray.

Olneya tesota Gray. — **Sonora Ironwood.**

RANGE.—Southern California (from Colorado River south of Mohave Mountains) to southwestern Arizona and through adjacent Mexico (Sonora) and Lower California (between Comundee and Calamujuet).

NAMES IN USE.—Iron Wood (Cal.); Arbol de Hierro (Cal.); Palo de Hierro (Ariz.).

ICHTHYOMETHIA Browne.

Ichthyomethia piscipula (Linn.) Kuntze. — **Jamaica Dogwood.**
PISCIDIA ERYTHRINA Linn.

RANGE.—Southern Florida (Biscayne Bay on east coast, and on the west from Pease Creek to Cape Sable) and southern keys; West Indies and southern Mexico.

NAME IN USE.—Jamaica Dogwood (Fla.).

Family ZYGOPHYLLACEÆ.

GUAJACUM Linn.

Guajacum sanctum Linn. — **Lignum-vitæ.**

RANGE.—Florida keys from Key West eastward (upper and lower Metacombe keys, Lignum vitæ Keys, Umbrella Keys); Bahamas, San Domingo, and Puerto Rico.

NAMES IN USE.—Lignum-vitæ (Fla.); Ironwood (Fla.).

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Family RUTACEÆ.

XANTHOXYLUM Linn.

Xanthoxylum clava-herculis Linn. **Prickly Ash.**

RANGE.—Coast region from southern Virginia to Florida (Biscayne Bay and Tampa Bay); west through the Gulf States to northwestern Louisiana, southern Arkansas, and through Texas (to Devils River).

NAMES IN USE.—Prickly Ash (N. C., S. C., Ga., Fla., Miss., La., Tex., Ark.); Toothache-tree (N. C., S. C., Fla., Miss., La., Ark.); Pepper-wood (Miss.); Sea Ash (Miss., Fla.); Southern Prickly Ash (Ala.); Ash (Va.); Frêne-piquant (La.); Sting-tongue (Fla. Negroes, Ark.); Wait-a-bit, Tear-blanket (Ark.); Wild Orange.

Xanthoxylum clava-herculis fruticosum Gray.

Xanthoxylum cribrosum Spreng. **Satinwood.**

RANGE.—Florida keys (Marquesas Keys, South Bahia Honda, and Boca Chica Keys); San Domingo, Puerto Rico, Bahamas, and Bermuda.

NAMES IN USE.—Yellow-wood (Fla.); Satinwood (Fla.).

Xanthoxylum fagara (Linn.) Sargent. **Wild Lime.**

XANTHOXYLUM PTEROTA H. B. K.

RANGE.—Southern Florida coast and islands (on the east coast south of Mosquito Inlet and on the west coast south of latitude 29°); coast of Texas (from Matagorda Bay to the Rio Grande River); West Indies; northern Mexico; Central and South America (to Brazil and Peru).

NAME IN USE.—Wild Lime (Fla.).

PTELEA Linn.

Ptelea trifoliata Linn. **Hoptree.**

RANGE.—Southern Ontario (Point Pelee, Lake Ontario); New York (Long Island); Pennsylvania and west through southern Michigan (up to Montcalm County) to Minnesota; south to northern Florida and west to Texas, and through New Mexico to Colorado (Mimbres River); northern Mexico.

NAMES IN USE.—Hoptree; Wafer Ash; Whahoo; Quinine-tree (Mich.).

VARIETY DISTINGUISHED IN CULTIVATION.

Ptelea trifoliata aurea Nich. **Golden Hoptree.**

HELIETTA Tulasne.

Helietta parvifolia Benth. **Baretta.**

RANGE.—Texas (near Rio Grande City); Mexico (south of the lower Rio Grande to the lower slopes of the Sierra Madre Mountains and through Nuevo Leon).

AMYRIS Browne.

Amyris maritima Jacq. **Torchwood.**

AMYRIS SYLVATICA de C.

RANGE.—Southern Florida (from Mosquito Inlet on the east coast to the southern keys); Bahamas, St. Thomas, Cuba, and Jamaica Islands.

NAME IN USE.—Torchwood (Fla.).

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CANOTIA Torr.

Canotia holacantha Torr. **Canotia.**

RANGE.—Arizona (from White Mountain region to the Bill Williams (River) Fork); southern California (Providence Mountains).

NAME IN USE.—Canotia (Ariz.).

Family SIMAROUBACEÆ.

SIMAROUBA Aublet.

Simarouba glauca de C. **Paradise-tree.**

RANGE.—Southern Florida (from Cape Canaveral, on the west coast, to the southern keys and to Biscayne Bay); Cuba, Jamaica, Nicaragua, and Brazil.

NAMES IN USE.—Paradise-tree (Fla.); Gumbo Limbo (Fla.); Bitterwood (Fla.).

KŒBERLINIA Zucc.

Kœberlinia spinosa Zucc. **Kœberlinia.**

RANGE.—Texas (from valley of Rio Grande River southward) to northern Mexico (to near Altar River, in Sonora, and to near San Luis Potosi).

AILANTHUS Desf.

Ailanthus glandulosa Desf. **Ailanthus.**

RANGE.—China; but widely naturalized in Eastern United States.

VARIETIES DISTINGUISHED IN CULTIVATION.

Ailanthus glandulosa rubra Dipp. **Redfruit Ailanthus.**
Ailanthus glandulosa pendulifolia Dipp. **Drooping Ailanthus.**
Ailanthus glandulosa aucubæfolia Dipp.

Family BURSERACEÆ.

BURSERA Jacq.

Bursera simaruba (Linn.) Sargent. **Gumbo Limbo.**

BURSERA GUMMIFERA Linn.

RANGE.—Southern Florida (on the east coast from Cape Canaveral to the southern keys; west coast on Caloosa River and Caximbas Bay); West Indies, southern Mexico, Guatemala, New Grenada, Venezuela.

NAMES IN USE.—Gum Elemi (Fla.); Gumbo Limbo (Fla.); West Indian Birch (Fla.).

Family MELIACEÆ.

MELIA Linn.

Melia azedarach Linn. **China-tree.**

RANGE.—Persia. Widely cultivated in Old and New World and naturalized by cultivation in Southern United States.

Melia azedarach umbraculifera Sargent. **Umbrella China-tree.**

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SWIETENIA Jacq.

Swietenia mahagoni Jacq. **Mahogany.**

RANGE.—Florida keys (Key Largo and Elliotts Key); Bahamas, West Indies, southern Mexico, Central America, and Peru.

NAMES IN USE.—Mahogany (Fla.); Madeira (Fla.); Redwood (Fla.).

Family EUPHORBIACEÆ.

DRYPETES Vahl.

Drypetes lateriflora (Swartz) Urban. **Florida Plum.**

DRYPETES CROCEA Poit.

RANGE.—Southern Florida (Biscayne Bay) and several of the southern keys; Bahamas, Cuba, San Domingo, Jamaica, Puerto Rico.

NAMES IN USE.—Guiana Plum (Fla.); Whitewood (Fla.).

Drypetes keyensis Urban. **Guiana Plum.**

RANGE.—Florida keys (Key West, Umbrella Key, Elliotts Key).

NAMES IN USE.—Guiana Plum (Fla.); Whitewood (Fla.).

GYMNANTHES Swartz.

Gymnanthes lucida Swartz. **Crabwood.**

SEBASTIANA LUCIDA Muell.

RANGE.—Coast of southern Florida (from Biscayne Bay to the Marquesas Keys); Bahamas, West Indies.

NAMES IN USE.—Crabwood (Fla.); Poisonwood (Fla.).

HIPPOMANE Linn.

Hippomane mancinella Linn. **Manchineel.**

RANGE.—From the keys of southern Florida through the Bahamas and West Indies to northern South America and eastern and western coast of Central America and southern Mexico.

NAME IN USE.—Manchineel (Fla.).

SAPIUM Browne.

Sapium sebiferum Roxb. **Tallow-tree.**

STILLINGIA SEBIFERUM Michx.

RANGE.—China and Japan. Cultivated and naturalized in the Gulf States.

Family CHEIRANTHODENREÆ.

FREMONTODENDRON Coville.

Fremontodendron californicum (Torr.) Coville. **Fremontia.**

FREMONTIA CALIFORNICA Torr.

RANGE.—California (from Mariposa) to Lower California.

NAMES IN USE.—Slippery Elm (Cal.); Silver Oak (Cal.); Leatherwood (Cal.); Fremontia (Cal.).

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Family THEACEÆ.

GORDONIA Ellis.

Gordonia lasianthus (Linn.) Ellis. **Loblolly Bay.**

RANGE.—Coast region from southern part of Virginia to Florida (Cape Malabar and Cape Romano) and west in the Gulf region to the Mississippi River.

NAMES IN USE.—Loblolly Bay (N. C., S. C., Ga., Ala., Fla., Miss., La.); Tan Bay (Miss., Fla., La.); Black Laurel (N. C.).

Gordonia altamaha (Marsh.) Sargent. **Franklinia.**

GORDONIA PUBESCENS L'Her.

RANGE.—At present known only in cultivation. Originally (1765) found growing wild in Georgia (near Fort Barrington on the Altamaha River), but not seen since 1790.

Family CANELLACEÆ.

CANELLA Browne.

Canella winterana (Linn.) Gærtn. **Cinnamon-bark.**

CANELL ALBA Murr. in Linn.

RANGE.—Florida keys

NAMES IN USE.—Cinnamon-bark (Fla.); Whitewood; Wild Cinnamon.

Family ANACARDIACEÆ.

COTINUS Adans.

Cotinus cotinoides (Nutt.) Britton. **American Smoke-tree.**

RHUS COTINOIDES Nutt.

RANGE.—Indian Territory (Grand River); Alabama (north of Tennessee River and on southern slopes of Cumberland Mountains near Huntsville); eastern Tennessee (Cheat Mountain); Texas (Medina River).

NAMES IN USE.—Chittamwood (Ala.); Yellow-wood (Ala.); Smoke-tree (Ark., R. I. (cult.).

RHUS Linn.

Rhus metopium Linn. **Poisonwood.**

RANGE.—Southern Florida (Biscayne Bay) and southern keys; Bahamas, Cuba, Jamaica, Honduras.

NAMES IN USE.—Poisonwood (Fla.); Coral Sumach; Mountain Manchineel; Bumwood; Hog Plum; Doctor Gum.

Rhus hirta (Linn.) Sudworth. **Staghorn Sumach.**

RHUS TYPHINA Linn.

RANGE.—From New Brunswick (through the St. Lawrence River Valley) to southern Ontario and Minnesota; south through the Northern States and along the Allegheny Mountains to northern Georgia, central Alabama, and Mississippi.

NAMES IN USE.—Staghorn Sumach (Vt., N. H., Mass., R. I., Conn., N. Y., N. J., Del., Pa., N. C., S. C., Miss., Mo., Mich., Wis., Ohio, Ont.); Sumach (Me., Vt., N. Y., Pa., W. Va., Ark., Ky., Ind., Wis.); Virginia Sumach (Tenn.); Hairy Sumach.

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Rhus copallina Linn. **Dwarf Sumach.**

RANGE.—New England to Florida (Manitee and Caximbas Bay), and west to Missouri, Arkansas, and Texas (San Antonio River); Cuba.

NAMES IN USE.—Dwarf Sumach (Vt., N. H., R. I., Mass., N. Y., Del., Pa., Ala., Fla., Miss., La., Kans.); Sumach (Vt., Pa., W. Va., S. C., Fla., Ga., Miss., La., Tex., Ky., Mo., Kans.); Smooth Sumach; Mountain Sumach (Vt., Tenn.); Black Sumach (Ark., Tex.); Wing-rib Mountain Sumach (S. C.); Common Sumach (S. C.).

Rhus copallina leucantha (Jacq.) de C. **White-flowered Dwarf Sumach.**

RANGE.—Texas (near New Braunfels).

Rhus copallina lanceolata Gray. **Lanceleaf Dwarf Sumach.**

RANGE.—Eastern Texas (to Rio Grande River).

Rhus vernix Linn. **Poison Sumach.**

RHUS VENENATA de C.

RANGE.—Northern New England to northern Georgia and Alabama; west to northern Minnesota, Arkansas, and western Louisiana.

NAMES IN USE.—Poison Sumach (Vt., N. H., Mass., R. I., Conn., N. Y., N. J., Del., N. C., S. C., Ala., Miss., La., Mo., Iowa, Wis., Mich., Minn., Ohio, Ont., Nebr.); Poison Elder (Vt., Mass., R. I., N. Y., Del., S. C., Ga., Ala., Miss., La., Mo., Nebr., Minn.); Poison Dogwood (N. H., Vt., N. J., Pa., D. C., Mo., Mich., Minn.); Dogwood (Vt., Mass., R. I., Wis., Mich., Iowa, Nebr., Minn., La.); Swamp Sumach (R. I., N. Y., N. J., Tenn., Minn.); Sumach (R. I.); Poison Oak (La.); Poison Ash (Pa.); Poison-wood (Tenn.); Poisontree; Thunderwood (Ga.).

Rhus integrifolia (Nutt.) Benth. & Hook. **Western Sumach.**

RANGE.—Coast of southern California (from Santa Barbara) to southern Lower California (Magdalena Bay); Santa Barbara and Cedros Islands.

Family CYRILLACEÆ.

CYRILLA Linn.

Cyrilla racemiflora Linn. **Ironwood.**

RANGE.—Coast region from North Carolina to Florida (to latitude 30° and on southern keys); inland in South Carolina and Georgia to near Augusta; west on Gulf coast to Texas (Neches River); Cuba, Jamaica, Dominica, Demerara, and Brazil.

NAMES IN USE.—Ironwood (S. C., Ga., Fla., Miss., La.); Leatherwood (Ala., Fla.); He Huckleberry (S. C.); Burnwood; Burnwood-bark; Firewood (Ga.); Burning-wood (Ga.); Red Titi (Fla.); White Titi.

CLIFTONIA Gærtn. f.

Cliftonia monophylla (Lam.) Sargent. **Titi.**

CLIFTONIA LIGUSTRINA Sims ex Spreng.

RANGE.—Coast region from South Carolina (Savannah River) to northern Florida, and west in the Gulf region to eastern Louisiana.

NAMES IN USE.—Titi (S. C., Ga., Ala., Fla., Miss.); Buckwheat-tree (Fla., La.); Black Titi (Fla.); Ironwood.

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Family AQUIFOLIACEÆ.

ILEX Linn.

Ilex opaca Ait. **American Holly.**

RANGE.—Coast region from Massachusetts (Massachusetts Bay, near Quincy) to Florida (Mosquito Inlet and Charlotte Harbor); from southern Indiana (through Mississippi River Valley) to the Gulf, and through Missouri, Arkansas, Louisiana, and eastern Texas.

NAMES IN USE.—Holly (R. I., Del., W. Va., Pa., N. C., S. C., Ga., Fla., Miss., La., Ark); American Holly (Mass., R. I., Conn., N. Y., N. J., Pa., Del., N. C., Ala., Miss., La.); White Holly (Va.).

Ilex cassine Linn. **Dahoon (Holly).**

ILEX DAHOON Walt.

RANGE.—Coast region from southern Virginia to Florida (Biscayne Bay and Tampa Bay); west on the Gulf coast to western Louisiana.

Ilex cassine angustifolia Willd. **Narrowleaf Dahoon.**

Ilex cassine mytifolia (Walt.) Sargent. **Myrtle-leaf Dahoon.**

RANGE.—North Carolina to Louisiana.

NAMES IN USE.—Dahoon (N. C., S. C., Ga., Ala., Fla., Miss., La.); Dahoon Holly (N. C., S. C., Fla.); Yaupon (Fla.).

Ilex vomitoria Ait. **Yaupon (Holly).**

ILEX CASSINE Walt.

RANGE.—Coast region from southern Virginia to Florida (St. Johns River and Cedar Keys); west on the Gulf coast to southern Texas (Matagorda Bay) and to western Texas (Rio Blanco River), and west of the Mississippi River northward to southern Arkansas.

NAMES IN USE.—Yopon (N. C., Ga., Ala., Miss., Tex.); Yaupon (N.C., S. C., Fla., Miss., La.); Cassena (N. C., S. C., Fla., La.); Cassine (La.); True Cassena; Evergreen Cassena; Cassio-berry Bush; Emetic Holly (S. C.).

Ilex decidua Walt. **Deciduous Holly.**

RANGE.—From southern Virginia (ranging from the coast to the eastern base of the Appalachian Mountains) to western Florida; from southern Illinois to the Gulf and through southwestern Missouri, Arkansas, and eastern Texas (Colorado River).

NAMES IN USE.—Holly (Tex., Ark., Mo.); Bearberry (Miss.); Possum Haw (Fla.).

Ilex monticola Gray. **Mountain Holly.**

RANGE.—From New York (Catskill Mountains and Cattaraugus County) southward in the mountains (and in Pennsylvania as far east as Northampton County) to northern Alabama. Arborescent chiefly in the mountains of North Carolina, South Carolina, and eastern Tennessee (Great Smoky Mountains).

Family CELASTRACEÆ.

EVONYMUS Linn.

Evonymus atropurpureus Jacq. **Waahoo.**

RANGE.—From western New York through Michigan to Nebraska (and in Montana on upper Missouri River); south to northern Florida, southern Arkansas, and Indian Territory.

NAMES IN USE.—Burning Bush (R. I., N. Y., N. J., Pa., Del., Md., N. C., S. C., Miss., Ark., Ky., Ohio, Ill., Ind., Iowa, Kans., Nebr.,

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Mich.); Waahoo (N. Y., N. J., Pa., W. Va., N. C., S. C., Miss., Ky., Ark., Mo., Nebr., Ill., Iowa, Kans., Ohio, Ind.); Spindle-tree (R. I., Del., Pa., N. C., Ill.); Arrow-wood (Miss., La., Ill., Mo.); Strawberry-tree (N. Y.); Strawberry Bush (Tenn.); "Moses in the Burning Bush" (N. J.); Bleeding Heart (N. C.); Indian Arrow (Ind.).

GYMINDA Sargent.

Gyminda grisebachii Sargent. **Gyminda.**

MYGINDA PALLENS Smith ex Sargent.

RANGE.—Islands of southern Florida (from Marquesas to Upper Metacombe Key); Cuba, and Puerto Rico.

NAMES IN USE.—False Boxwood (Fla.); Gyminda.

Gyminda grisebachii glaucifolia (Griseb.) Sudworth. **Pale Gyminda.**

RANGE.—Cuba.

SCHÆFFERIA Jacq.

Schæfferia frutescens Jacq. **Florida Boxwood.**

RANGE.—Islands of southern Florida (vicinity Caloos River, and from Metacombe Key eastward, and on Reef Keys); Bahamas, West Indies, Venezuela.

NAMES IN USE.—Yellow-wood (Fla.); Boxwood (Fla.).

Family ACERACEÆ.

ACER Linn.

Acer spicatum Lam. **Mountain Maple.**

RANGE.—From the lower St. Lawrence River to northern Minnesota and region of the Saskatchewan River; south through the Northern States (in Michigan down to Eaton County) and along the Appalachian Mountains to northern Georgia.

NAMES IN USE.—Mountain Maple (Vt., N. H., R. I., Conn., N. Y., N. J., Pa., N. C., S. C., Mich., Minn.); Moose Maple (Vt.); Low Maple (Tenn.); Water Maple (Ky.).

Acer pennsylvanicum Linn. **Striped Maple.**

RANGE.—From Quebec (Ha-Ha Bay, on Saguenay River) westward along the shores of Lake Ontario and islands of Lake Huron to northeastern Minnesota; southward into the Northern and North Atlantic States (in Michigan to Roscommon County) and along the Appalachian Mountains to northern Georgia.

NAMES IN USE.—Striped Maple (Vt., N. H., R. I., Mass., N. Y., Pa., N. J., S. C., Ga., Ky., Mich., Minn., Ont.); Moosewood (Me., Vt., N. H., R. I., Mass., N. Y., Pa., N. C., Mich., Minn.); Northern Maple (Minn.); Striped Dogwood (N. Y., N. C.); Mountain Alder (N. C.); Whistlewood (Mich.); Goosefoot Maple.

Acer macrophyllum Pursh. **Oregon Maple.**

RANGE.—From the coast region of Alaska (south of latitude 55°), British Columbia, and islands southward through Washington and Oregon (west of the Cascade Mountains) and California (coast ranges and western slopes of Sierra Nevada Mountains to San Bernardino Mountains and Hot Spring Valley in San Diego County).

NAMES IN USE.—Bigleaf Maple (Oreg.); Broad-leaved Maple (central Cal.; Oreg., Willamette Valley); Oregon Maple (Oreg., Wash.); White Maple (Oreg., Wash.); Maple (Cal.).

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Acer circinatum Pursh. **Vine Maple.**

RANGE.—From the coast region of British Columbia south through Washington, Oregon, and California (to Mendocino County).

NAMES IN USE.—Vine Maple (central and northern Cal.; Oregon—Willamette Valley); Mountain Maple.

Acer glabrum Torr. **Dwarf Maple.**

RANGE.—From British Columbia eastward and southward over the mountains of the West to California (on Sierra Nevada Mountains to Yosemite Valley), Colorado (eastern slopes of Rocky Mountains), eastern New Mexico, and western Arizona.

NAMES IN USE.—Dwarf Maple (Oreg., Utah, Cal., Colo.); Mountain Maple (Colo., Mont.); Soft Maple (Utah); Shrubby Maple (Utah); Bark Maple (Idaho); Maple (Mont.).

Acer saccharum Marsh. **Sugar Maple.**
ACER SACCHARINUM Wang.

RANGE.—From southern Newfoundland (along the St. Lawrence and Saguenay rivers, Lake St. John, and northern borders of Great Lakes) to Lake of the Woods and Minnesota; south (through the Northern States and on the Allegheny Mountains) to northern Georgia and western Florida; west to eastern Nebraska, eastern Kansas, and eastern Texas.

NAMES IN USE.—Sugar Maple (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ala., La., Ky., Mo., Ohio, Ill., Ind., Iowa, Kans., Nebr., Mich., Minn., Wis., Ont.); Hard Maple (Vt., R. I., N. Y., N. J., Pa., Va., Ala., Ky., Mo., Kans., Nebr., Ill., Ind., Iowa, Mich., Ohio, Minn., Ont.); Sugar-tree (Me., Vt., R. I., Pa., Va., W. Va., Ala., Miss., La., Ark., Ky., Mo., Ill., Ind., Ohio, Kans.); Rock Maple (Me., Vt., N. H., Conn., Mass., R. I., N. Y., Tenn., Ill., Mich., Iowa, Kans., Wis., Minn., Ont.); Black Maple (Fla., Ky., N. C.); Maple (S. C.).

Acer saccharum nigrum (Michx. f.) Britton. **Black Maple.**
ACER SACCHARINUM Wang.

RANGE.—From Vermont (Lake Champlain) to Minnesota, eastern Kansas, and southwestern Arkansas; southward (west of the Allegheny Mountains) to northern Alabama and Mississippi (Chickasaw River).

NAMES IN USE.—Black Sugar Maple (Mich., Mo.); Black Maple (Mich., Iowa); Hard Maple (Minn.).

VARIETY DISTINGUISHED IN CULTIVATION.

Acer saccharum nigrum monumentale (Temple) Sudw.

Acer saccharum barbatum (Michx.) Trelease.

RANGE.—Nearly the same as the preceding, but insufficiently known.

Acer saccharum leucoderme (Small) Sudworth.
Whitebark Maple.

RANGE.—North Carolina to Georgia and Alabama.

Acer saccharum floridanum (Chapm.) Small & Heller.
Florida Maple.

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ACER SACCHARINUM Wang. var. FLORIDANUM Chapm.

RANGE.—From western Florida through southern Alabama (to central prairie region) to Texas (Cibolo River) and into Mexico (Sierra Madre Mountains in Nuevo Leon).

Acer saccharum grandidentatum (Nutt.) Sudworth.

Large-tooth Maple.

ACER GRANDIDENTATUM (Nutt. ! mss.) in Torr. & Gr.

RANGE.—Montana (head waters of Columbia River); Utah (Wasatch Mountains); southern Arizona (Huachuaca Mountains and others); New Mexico (Mongollon Mountains); western Texas (Guadaloupe Mountains); Mexico (mountains of Coahuila).

NAMES IN USE.—Western Sugar Maple; Hard Maple (Utah); Large-toothed Maple.

Acer saccharinum Linn. **Silver Maple.**

ACER DASYCARPUM Ehr.

RANGE.—From New Brunswick (St. Johns River) to western Florida; west to southern Ontario, through Michigan to eastern Dakota, Nebraska, Kansas (Blue River), and Indian Territory.

NAMES IN USE.—Silver Maple (Me., Vt., Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Fla., Miss., Ky., Ohio, Ill., Ind., Mo., Kans., Nebr., Iowa, Mich., Minn., S. Dak.); Soft Maple (Vt., N. H., Mass., R. I., N. Y., N. J., Pa., W. Va., Ala., Miss., La., Tex., Mo., Ohio, Mich., Ont., Ill., Ind., Kans., Nebr., Iowa, Wis., Minn., S. Dak.); White Maple (Me., Vt., R. I., N. Y., N. J., Pa., W. Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Ky., Mo., Ill., Ind., Kans., Nebr., Minn.); River Maple (Me., N. H., R. I., W. Va., Minn.); Silver-leaved Maple (Del., N. J.); Water Maple (Pa., W. Va.); Creek Maple (W. Va.); Swamp Maple (W. Va., Md.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Acer saccharinum pendulum (Nich.) Sudw.	**Weeping Silver Maple.**
Acer saccharinum aureo-variegatum (Nich.) Sudw.	**Variegated Silver Maple.**
Acer saccharinum wierii (Pax) Sudw.	**Cutleaf Silver Maple.**
Acer saccharinum dissectifolium Sudw.	
Acer saccharinum lutescens (Pax) Sudw.	
Acer saccharinum novum (Ellw. & Barr.) Sudw.	**Crisp-leaf Silver Maple.**

Acer rubrum Linn. **Red Maple.**

RANGE.—From New Brunswick, Quebec, and Ontario (latitude 49°) to Florida (Caloosa and Indian rivers); west to Lake of the Wood, eastern Dakota and Nebraska, Indian Territory, and Texas (Trinity River).

NAMES IN USE.—Red Maple (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Tex., Ky., Mo., Ill., Ind., Ohio, Ont., Iowa., Wis., Nebr.); Swamp Maple (Vt., N. H., Mass., Conn., R. I., N. Y., N. J., Pa., Del., N. C., S. C., Fla., Ala., Miss., La., Tex., Mo., Ind., Ont., Minn.); Soft Maple (Vt., Mass., N. Y., Va., Miss., Mo., Ill., Ind., Ohio, Ont., Mich., Kans., Nebr., Minn.); Water Maple (Miss., La., Tex., Ky., Mo.); White Maple (Me., N. H.); Shoe-peg Maple (W. Va.); Erable (La.); Ah-weh-hot-kwah = "Red Flower" (Onondaga Indians, N. Y.); Scarlet Maple (Tex.).

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Acer rubrum drummondii (Hook. & Arn.) Sargent.
Drummond Maple.

RANGE.—Southern Georgia and Alabama (coast plain), southwestern Tennessee (Covington), western Louisiana, southern Arkansas, eastern Texas.

VARIETY DISTINGUISHED IN CULTIVATION.

Acer rubrum sanguineum (Spach) Pax.

Acer negundo Linn. **Boxelder.**

NEGUNDO ACEROIDES Moench.

RANGE.—Vermont (Lake Champlain and Winooski River), New York (Cayuga Lake), eastern Pennsylvania, and south to Florida (Hernando County); northwestward to Winnipeg (Dogs Head Lake and along southern branch of the Saskatchewan River), to the eastern base of the Rocky Mountains (in British America), to Montana (Rocky Mountains), Utah (Wasatch Mountains), western Texas, New Mexico, and eastern Arizona.

NAMES IN USE.—Boxelder (Vt., Mass., R. I., Del., N. Y., N. J., Pa., Va., W. Va., N. C., S. C., Ala., Fla., Miss., La., Tex., Ark., Mo., Ariz., N. Mex., Mont., Ill., Ind., Wis., Ohio, Mich., Iowa, Kans., Nebr., N. Dak., S. Dak., Minn.); Ash-leaved Maple (R. I., Mass., N. J., Pa., Del., Va., S. C., La., Tex., Ill., Wis., Iowa, Ont., Kans., Nebr., Mont., N. Dak., Mich., Minn.); Cut-leaved Maple (Colo.); Negundo Maple (Ill.); Red River Maple (N. Dak.); Three-leaved Maple (Pa.); Black Ash (Tenn.); Stinking Ash (S. C.); Sugar Ash (Fla.); Water Ash (Dakotas).

Acer negundo californicum (T. & Gr.) Sargent.
California Boxelder.

NEGUNDO CALIFORNICUM Torr. & Gr.

RANGE.—Southern California (valley lower Sacramento River; valleys and coast ranges from San Francisco Bay to about latitude 35°; western slopes San Bernardino Mountains).

NAMES IN USE.—Box Elder (Cal.); Maple (Cal.); False Maple (Cal.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Acer negundo variegatum Kuntze.
Acer negundo angustissimum (Pax) Sudw.
Acer negundo crispifolium Sudw. **Curl-leaf Boxelder.**
Acer negundo violaceum (Koch) Dipp.

Family HIPPOCASTANACEÆ.

ÆSCULUS Linn.

Æsculus glabra Willd. **Ohio Buckeye.**

RANGE.—From Pennsylvania (western slopes Allegheny Mountains) to northern Alabama (Tennessee River Valley and mountains) and west to southern Iowa, central Kansas, and Indian Territory.

NAMES IN USE.—Ohio Buckeye (Miss., Ga., Ark., Mo., Ohio); Buckeye (Pa., Ky., Mo., Ill., Ind., Ohio, Iowa, Kans.); Fetid Buckeye (W. Va.); Stinking Buckeye (Ala., Ark.); American Horse Chestnut (Pa.).

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Æsculus octandra Marsh. **Yellow Buckeye.**

ÆSCULUS FLAVA Ait.

RANGE.—From Pennsylvania (Allegheny County and along the Allegheny Mountains to Georgia (Augusta) and northern Alabama (mountains); westward to southern Iowa, Indian Territory, and western Texas (upper Cibolo River, near Boerne).

NAMES IN USE.—Buckeye (N. C., S. C., Ala., Miss., La., Tex., Ky.); Sweet Buckeye (W. Va., Miss., Tex., Mo., Ind.); Yellow Buckeye (S. C., Ala.); Large Buckeye (Tenn.); Big Buckeye (Tex., Tenn.); Ohio Buckeye (Pa., cult.)

Æsculus octandra hybrida (de C.) Sargent. **Purple Buckeye.**

ÆSCULUS FLAVA Ait. var PURPURASCENS Gray.

RANGE.—From West Virginia southward (on Allegheny Mountains); Texas.

Æsculus californica (Spach) Nutt. **California Buckeye.**

RANGE.—California (from Sacramento River in Mendocino County along coast ranges to San Luis Obispo County; western foothills of Sierra Nevada Mountains to northern slopes of Tejon Pass in Kern County; Antelope Valley of San Gabriel Mountains in Los Angeles County).

NAMES IN USE.—California Buckeye (Cal.); Horse Chestnut (Cal.).

Family SAPINDACEÆ.

UNGNADIA Endl.

Ungnadia speciosa Endl. **Texas Buckeye.**

RANGE.—From Texas (Trinity River) to New Mexico (Organ Mountains), and southward into Mexico (Sierra Madre Mountains in Nuevo Leon and mountains of Chihuahua).

NAMES IN USE.—Spanish Buckeye (Tex.); Texas Buckeye (Tex.).

SAPINDUS Linn.

Sapindus saponaria Linn. **Soapberry.**

RANGE.—Southern Florida (Cape Sable, shores and islands of Caximbas Bay and Biscayne Bay) and keys (Key Largo and Elliotts Key); West Indies and Venezuela.

NAMES IN USE.—False Dogwood (Fla); Soapberry (Fla).

Sapindus marginatus Willd. **Wild China.**

RANGE.—From Georgia (Savannah River) to Florida (St. Johns River on the east coast and on the west coast from Cedar Keys to Manatee River); Alabama (escaped from cultivation and running wild near Mobile); from western Louisiana to southern Arkansas (Washita River) and southern Kansas, through Texas to southern New Mexico, southern Arizona, and into northern Mexico.

NAMES IN USE.—Soapberry (Fla., La., Tex., Ark.); Wild China (Fla., La., Tex.); Chinaberry (N. Mex.).

EXOTHEA Macfadyen.

Exothea paniculata (Juss.) Radlk. **Inkwood.**

HYPELATE PANICULATA Camb.

RANGE.—Southern Florida (from Mosquito Inlet to the southern keys); San Domingo, Cuba, and Jamaica.

NAMES IN USE.—Inkwood (Fla.); Ironwood.

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HYPELATE Browne.

Hypelate trifoliata Swartz. **White Ironwood.**

RANGE.—Florida keys (Upper Metacombe and Umbrella keys); Jamaica and Cuba.

NAME IN USE.—White Ironwood (Fla.).

Family RHAMNACEÆ.

REYNOSIA Griseb.

Reynosia latifolia Griseb. **Red Ironwood.**

RANGE.—Southern Florida (Marquesas Islands to Biscayne Bay); Cuba, Virgin and Bahama islands.

NAMES IN USE.—Red Ironwood (Fla.); Darling Plum (Fla.).

CONDALIA Cav.

Condalia obovata Hook. **Bluewood.**

RANGE.—Western Texas (Matagorda Bay to the Rio Grande River) and northeastern Mexico.

NAMES IN USE.—Bluewood (Tex.); Logwood (Tex.); Purple Haw (Tex.).

RHAMNIDIUM Reissek.

Rhamnidium ferreum (Vahl) Sargent. **Black Ironwood.**

CONDALIA FERREA Griseb.

RANGE.—Southern Florida (coast from Cape Canaveral and keys to Biscayne Bay); St. Croix, San Domingo, St. Thomas, Puerto Rico, and Jamaica.

NAME IN USE.—Black Ironwood (Fla.).

RHAMNUS Linn.

Rhamnus crocea Nutt. **Evergreen Buckthorn.**

RANGE.—California (upper Sacramento River, west of Sierra Nevada Mountains, to latitude 29°) to Lower California (Guadalupe Islands).

Rhamnus crocea insularis (Greene) Sargent.

RANGE.—Southern California (Cedros and Santa Barbara islands and adjacent mainland).

Rhamnus pirifolia Greene.

RANGE.—Off coast southern California (Santa Cruz Islands).

Rhamnus caroliniana Walt. **Yellow Buckthorn.**

RANGE.—From New York (Long Island) to Florida, and west (through the Ohio River Valley) to eastern Nebraska, eastern Kansas, and eastern Texas.

NAMES IN USE.—Indian Cherry (W. Va., N. C., Miss., La., Tex., Ark., Nebr.); Buckthorn (Ark., Iowa, Nebr.); Alder Buckthorn (Tex., Nebr.); Yellow-wood (Ala., Fla., La.); Stinkwood (La.); Bog Birch (Minn.); Stink Berry (Nebr.); Stink Cherry (Nebr.); Carolina Buckthorn (S. C., Pa.); Polecat-tree (Tex.); Polecat-wood (Ark.); Brittlewood (Ark.).

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Rhamnus purshiana de C. **Cascara Buckthorn.**

RANGE.—From Puget Sound southward into Lower California; eastward through northern Washington to Idaho (Bitter Root Mountains), Montana (Flat Head Lake); eastern slopes Sierra Nevada Mountains; mountains of Colorado and western Texas.

NAMES IN USE.—Shittimwood (Oreg., Idaho, Wash.); Cascara Sagrada (Cal., Oreg.); Bearberry (Oreg., Idaho, Wash.); Bearwood (Oreg.); Yellow-wood (Oreg.); Buckthorn (Idaho); Pigeon-berry (Idaho); Oregon Bearwood (Oreg., Wash.); Coffee-berry (Cal.); Wild Coffee-bush (Cal.); Western Coffee (Oreg., Cal.); Bayberry (Oreg., Cal.); Wild Coffee (Cal.); California Coffee (Cal.).

CEANOTHUS Linn.

Ceanothus thyrsiflorus Esch. **Blue Myrtle.**

RANGE.—Western California (from Mendocino County to San Luis Rey River).

NAMES IN USE.—Blue Myrtle; California Lilac (Cal.); Wild Lilac (Cal.); Blue Blossom (Cal.).

Ceanothus arboreus Greene. **Tree Myrtle.**

RANGE.—Off coast of southern California (Santa Catalina, Santa Cruz, Santa Rosa Islands).

COLUBRINA Brongn.

Colubrina reclinata (L'Hér.) Brongn. **Naked-wood.**

RANGE.—Southern Florida (Umbrella Key, north end of Key Largo, and islands south of Elliotts Key); Jamaica, San Lucia, St. Vincent, Cuba, St. Croix, Haiti, Virgin and Bahama islands.

NAMES IN USE.—Naked-wood (Fla.); Soldierwood (Fla.).

Family TILIACEÆ.

TILIA Linn.

Tilia americana Linn. **Basswood.**

RANGE.—New Brunswick to Virginia and (along Allegheny Mountains) to Georgia and Alabama (mountains); west (in Canada) to Lake Superior (eastern shores) and to Lake Winnipeg (southern shores) and Assiniboine River (in United States), to eastern Dakota, eastern Nebraska, Kansas, Indian Territory, and eastern Texas.

NAMES IN USE.—Basswood (Me., N. H., Vt., R. I., Mass., Conn., N. Y., N. J., Del., Pa., W. Va., D. C., N. C., S. C., Ga., Ala., Miss., La., Ark., Ky., Ill., Ind., Iowa, Wis., Mich., Ohio, Ont., Nebr., Kans., Minn., N. Dak.); American Linden (Me., N. H., R. I., N. Y., Pa., Del., N. C., Miss., Ohio, Ill., Nebr., N. Dak., Ont., Minn.); Linn (Pa., Va., W. Va., Ala., La., Ill., Ind., Ohio, Mo., Iowa., Kans., Nebr., Wis., S. Dak.); Linden (Vt., R. I., Pa., W. Va., Nebr., Minn.); Limetree (R. I., N. C., S. C., Ala., Miss., La., Ill.); Whitewood (Vt., W. Va., Ark., Minn., Ont.); Beetree (Vt., W. Va., Wis.); Black Limetree (Tenn.); Smooth-leaved Limetree (Tenn.); White Lind (W. Va.); Wickup (Mass.); Yellow Basswood (Ind.); Lein (Ind.).

Tilia pubescens Ait. **Downy Basswood.**

TILIA AMERICANA 3 PUBESCENS Loud.

RANGE.—New York (Long Island—swamp in Wading River, Suffolk County); coast of North Carolina, South Carolina, Georgia; northern Florida, Louisiana, Texas (Rio Blanco River). Range insufficiently known.

NAME IN USE.—Wahoo (Fla.).

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Tilia pubescens leptophylla Vent. **Thinleaf Downy Basswood.**

RANGE.—Louisiana; local.

Tilia heterophylla Vent. **White Basswood.**

RANGE.—From Pennsylvania (through the Allegheny Mountains) to western and central Florida (Lake Charm in Orange County) and Alabama (Tennessee River valley to central prairie region); west to southern Indiana and Illinois, Kentucky and Tennessee (to Nashville).

NAMES IN USE.—White Basswood (Ind., Ala.); Wahoo (Ga., Fla.); Wild Linden; Smooth-fruited, White-leaved Limetree (Tenn.); Large-leaved Limetree (Tenn.); Silverleaf Poplar (Ky.); Cottonwood (Ky.); Lin (Ind., Tenn.).

Family CACTACEÆ.

CEREUS Mill.

Cereus giganteus Engelm. **Giant Cactus.**

RANGE.—Central and southern Arizona (from Bill Williams River to the San Pedro River) and southward into Mexico (Sonora).

NAMES IN USE.—Giant Cactus (N. Mex., Ariz.); Sahuara (Ariz.); Saguaro (Ariz.).

Cereus thurberi Engelm. **Thurber Cactus.**

RANGE.—Southwestern Arizona; Mexico (Sonora); Lower California.

NAMES IN USE.—Pitahaya (Mex.); Pitahaya dulce (Mex.).

Cereus schottii Engelm. **Schott Cactus.**

RANGE.—Southern Arizona; Mexico (Sonora); Lower California.

NAMES IN USE.—Zina, Sina, Sinita, Hombre viejo, and Cabeza viejo (Ariz., Mex.).

OPUNTIA[1] Mill.

Opuntia fulgida Engelm. **Cholla.**

RANGE.—From southern Nevada (Cottonwood Springs) through Arizona (south of Colorado plateau in Pima, Maricopa, Pinal, and Cochise counties) into Mexico (Sonora), and Lower California.

Opuntia fulgida mammillata (Scott) Coult.

RANGE.—Through southern Arizona (southern foothills of Santa Catalina Mountains, etc.) into Mexico (Sonora).

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[1] Although several species of Opuntias have long been known to be of tree-like form and dimensions, these arborescent species have usually not been considered strictly trees. It is evident, however, that they should be regarded as true trees, both from their tree-like form, and also from their truly woody internal structure. Prof. J. W. Toumey, of the University of Arizona, who has conducted many critical studies on southwestern Cactaceæ, writes the following concerning one of the tree Opuntias:

"The reticulated wood is used to some extent in the manufacture of light furniture, fancy articles, canes, picture frames, etc. A factory was established in Salt River Valley (Arizona) some three years ago for the purpose of manufacturing articles from this wood."

For excellent illustrations of the general appearance of these trees, the reader is referred to following articles by Professor Toumey: *Opuntia fulgida*, Garden and Forest, VIII, 324, f. 45, 1895; *Opuntia arborescens*, Garden and Forest, IX, 2, f. 1, 1896.

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Opuntia versicolor Engelm.[1]

RANGE.—Southern Arizona (foothills and low mountains).

Opuntia sponsior (Engelm.) Toumey.[2]

RANGE.—Southern Arizona. Range not yet perfectly known.

Opuntia sponsior neomexicana Toumey.[2]

RANGE.—Southern Arizona.

Family RHIZOPHORACEÆ.

RHIZOPHORA Linn.

Rhizophora mangle Linn. **Mangrove.**

RANGE.—Southern coast of Florida (Mosquito Inlet and Cedar Keys to southern islands); Mississippi delta; Texas coast; eastern and western coasts of Mexico; Lower California; from Central America along northern and eastern coast of South America to the limits of the tropics; Bermudas, Bahamas, West Indies; Galapagos Islands.

NAME IN USE.—Mangrove (Fla.).

Family MYRTACEÆ.

ANAMOMIS Griseb.

Anamomis dichotoma (Poir.) Sargent. **Naked Stopper.**

EUGENIA DICHOTOMA de C.

RANGE.—Florida coast (Mosquito Inlet to Cape Canaveral on the east, and on the west Caloosa River to Cape Romano; Key West, Biscayne Bay); West Indies.

NAMES IN USE.—Naked-wood (Fla.); Naked Stopper.

CHYTRACULIA Browne.

Chytraculia chytraculia (Linn.) Sudworth. **Stopper.**

CALYPTRANTHES CHYTRACULIA Swartz.

RANGE.—Florida (Lake Worth; Key West, Key Largo; Biscayne Bay); West Indies and southern Mexico.

Chytraculia chytraculia genuina (Berg.) Sudw.
Chytraculia chytraculia ovalis (Berg.) Sudw.
Chytraculia chytraculia trichotoma (Berg.) Sudw.
Chytraculia chytraculia pauciflora (Berg.) Sudw.
Chytraculia chytraculia zuzygium (Linn.) Sudw.

EUGENIA Linn.

Eugenia buxifolia (Swartz) Willd. **Gurgeon Stopper.**

RANGE.—Florida coast (on the east, Cape Canaveral to southern key; and on the west, Caloosa River to Cape Sable).

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[1] In Coulter, Contr. U. S. Nat. Herb., III, 452, 1896.
[2] Bot. Gaz., XXV, 119, 1898.

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Eugenia monticola (Swartz) de C. **White Stopper.**

RANGE.—Florida coast St. Johns River to Key Largo, Key West, Upper Metacombe Key, Elliotts Key); West Indies.

NAMES IN USE.—White Stopper (Fla.); Stopper (Fla.).

Eugenia procera (Swartz) Poir. **Red Stopper.**

RANGE.—Florida keys (Key West and Umbrella Key); San Domingo, Cuba, Jamaica, Santa Cruz, Martinique.

NAMES IN USE.—Red Stopper (Fla.); Spiceberry (Fla.).

Eugenia garberi Sargent. **Garber Stopper.**

EUGENIA PROCERA Sargent.

RANGE.—Florida (hammock, three-fourths mile east of mouth of Miami River; Old Rhodes Key and Elliotts Key; Bahamas (one), New Providence Island, West Indies (Antigua).

Family COMBRETACEÆ.

TERMINALIA Benth. & Hook.

Terminalia buceras (Browne) Benth. & Hook. **Black Olivetree.**

RANGE.—Southern Florida (Elliotts Key); West Indies, coast Caribbean Sea, and Bay of Panama.

CONOCARPUS Linn.

Conocarpus erecta Linn. **Florida Buttonwood.**

RANGE.—Coast of southern Florida (Cape Canaveral and Cedar Keys to southern islands West Indies); Central and South America; Galapagos Islands; east coast of Africa.

NAMES IN USE.—Buttonwood (Fla.).

Conocarpus erecta arborea de C.

Conocarpus erecta procumbens (Linn.) de C.

Conocarpus erecta sericea de C.

LAGUNCULARIA Gærtn. f.

Laguncularia racemosa (Linn.) Gærtn. f. **White Buttonwood.**

RANGE.—Coast of southern Florida (Cape Canaveral and Cedar Keys to southern islands); West Indies, Mexico, Central and South America, and western Africa.

NAMES IN USE.—White Buttonwood (Fla.); White Mangrove (Fla.); Buttonwood (Fla.).

Family ARALIACEÆ.

ARALIA Linn.

Aralia spinosa Linn. **Angelica-tree.**

RANGE.—From Pennsylvania (Allegheny Mountains in Clearfield, Cambria, Westmoreland, and Fayette counties) to Florida, and to southern Indiana, southeastern Missouri, Arkansas, and eastern Texas.

NAMES IN USE.—Angelica-tree, Hercules' Club.

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Family CORNACEÆ.

CORNUS Linn.

Cornus florida Linn. **(Flowering) Dogwood.**

RANGE.—From eastern Massachusetts to central Florida, and west through southern Ontario, southern Michigan (up to Montcalm County) to southwestern Missouri and Texas (Brazos River); Mexico (Sierra Madre Mountains).

NAMES IN USE.—Flowering Dogwood (Mass., R. I., N. Y., N. J., Del., Pa., Va., N. C., S. C., Miss., La., Ark., Mo., Ill., Kans., Mich., Ont., Ohio, Ind.); Dogwood (N. J., Pa., Del., W. Va., N. C., S. C., Ala., Fla., La., Ky., Ohio, Ind., Mich.); Boxwood (Conn., R. I., N. Y., Miss., Mich., Ky., Ind., Ont.); False Box-dogwood (Ky.); New England Boxwood (Tenn.); Flowering Cornel (R. I.); Cornel (Tex.).

VARIETIES DISTINGUISHED IN CULTIVATION.

Cornus florida pendula Temple. **Weeping Dogwood.**
Cornus florida rubra Temple. **Red-bract Dogwood.**

Cornus nuttallii Aud. **(Pacific) Dogwood.**

RANGE.—From southern coast of British Columbia (Lower Fraser River and Vancouver Island) through Washington, Oregon, and California (coast ranges to San Bernardino Mountains and western slopes of Sierra Nevada Mountains).

NAMES IN USE.—Dogwood (Cal., Oreg., Wash.); California Dogwood (Cal.); Flowering Dogwood (Oreg., Cal.); Western Dogwood.

Cornus alternifolia Linn. f. **Blue Dogwood.**

RANGE.—From Nova Scotia and New Brunswick (through St. Lawrence River Valley) to Lake Superior (northern shores) and Minnesota; south through the Northern States (and along the Allegheny Mountains) to northern Georgia and Alabama.

NAMES IN USE.—Dogwood (Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Va., W. Va., N. C., Ga., Fla., Miss., La., Ark., Ky., Ill., Wis., Minn., Ohio, Ont.); Blue Dogwood (Pa.); Purple Dogwood (Pa.); Umbrella-tree (R. I.); Pigeonberry (N. Y.); Alternate-leaved Dogwood (Mich.); Green Osier (Vt.).

NYSSA

Nyssa sylvatica Marsh. **Black Gum.**

NYSSA MULTIFLORA Wang.

RANGE.—From Maine (Kennebec River) to Florida (Kissimmee River and Tampa Bay) and west to southern Ontario, southern Michigan (up to Gratiot County), southeastern Missouri, and Texas (Brazos River).

NAMES IN USE.—Black Gum, (N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Ala., Fla., Miss., La., Tex., Ill., Ind.); Sour Gum (Vt., Mass., R. I., N. Y., N. J., Pa., Del., Va., W. Va., S. C., Fla., Tex., Ohio, Ind., Ill.); Tupelo (Mass., R. I., N. J., Del., S. C., Ala., Fla., Miss., Tex., Ill., Ohio); Pepperidge (Vt., Mass., R. I., N. Y., N. J., S. C., Tenn., Mich., Ohio, Ont.); Wild Peartree (Tenn.); Yellow Gumtree (Tenn.); Gum (Md.); Stinkwood (W. Va.); Tupelo Gum (Fla.).

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VARIETY DISTINGUISHED IN CULTIVATION.

Nyssa sylvatica pendula (Temple) Sudw.

Nyssa biflora Walt. **Water Gum.**

NYSSA AQUATICA Linn.

RANGE.—Maryland (Montgomery County) to Florida and central Alabama.

Nyssa ogeche Marsh. **Sour Tupelo.**

NYSSA CAPITATA Walt.

RANGE.—From southern borders of South Carolina (near coast and through the Ogeechee River Valley in Georgia) to northern Florida (Clay County) and western Florida (Washington County).

NAMES IN USE.—Sour Tupelo (S. C., Fla.); Ogeechee Lime (S. C., Fla.); Gopher Plum (Fla.); Tupelo; Wild Limetree; Limetree.

Nyssa aquatica Linn. **Cotton Gum.**

NYSSA UNIFLORA Wang.

RANGE.—Coast region from southern Virginia to northern Florida, and through the Gulf States to Texas (Nueces River); northward through Arkansas, west Tennessee and Kentucky, southern and southeastern Missouri to southern Illinois (lower Wabash River).

NAMES IN USE.—Large Tupelo (Ala., La., Tex.); Tupelo Gum (Ga., Ala., Miss., La.); Sour Gum (Ark., Mo.); Swamp Tupelo (S. C., La.); Cotton Gum (N. C., S. C., Fla.); Tupelo (N. C., S. C.); Wild Olivetree (La.); Olivier à grandes feuilles (La.); Olivetree (Miss.).

Family ERICACÆ.

VACCINIUM Linn.

Vaccinium arboreum Marsh. **Tree Huckleberry.**

RANGE.—From North Carolina to Florida (Hernando County) and through the Gulf States to eastern Texas (Matagorda Bay); northward through Arkansas and Tennessee to southern Illinois and Missouri.

NAMES IN USE.—Farkleberry (N. C., S. C., Fla., Miss., La., Mo.); Sparkleberry (N. C., S. C., Ala., Fla.); Myrtle Berries (La.); Bluet (La.); Tree Huckleberry (S. C.); Gooseberry (N. C.).

ARBUTUS Linn.

Arbutus menziesii Parsh. **Madroña.**

RANGE.—Coast region from British Columbia (islands at Seymour Narrows) to California (coast ranges to Santa Lucia Mountains).

NAMES IN USE.—Madroña (Cal., Oreg.); Madrove (Cal.); Laurel-wood (Oreg.); Madrone-tree; Laurel (Oreg.); Manzanita (Oreg.).

Arbutus xalapensis H. B. K. **Mexican Madroña.**

ARBUTUS XALAPENSIS var. TEXANA Gray.

RANGE.—Texas (Travis and Hays—Rio Blanco River—counties to Eagle and Guadalupe mountains); Mexico (Sierra Madre Mountains in Nuevo Leon, to mountains near Jalapa).

NAMES IN USE.—Manzanita; Madroña; Madrone-tree; Laurel.

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Arbutus arizonica (Gray) Sargent. **Arizona Madroña.**

ARBUTUS XALAPENSIS var. ARIZONICA Gray.

RANGE.—Southern Arizona (Santa Catalina and Santa Rita mountains); southward into Mexico (Sierra Madre Mountains in Chihuahua).

ANDROMEDA Linn.

Andromeda ferruginea Walt. **Andromeda.**

RANGE.—Coast region from South Carolina to Florida (Cedar Keys on west coast); Mexico (region of San Luis Potosi, mountains of Oaxaca, Orizaba, Jitotole, and Talea); West Indies.

NAME IN USE.—Titi (Fla.).

Andromeda ferruginea arborescens Michx.

Andromeda ferruginea fruticosa Michx.

OXYDENDRUM de C.

Oxydendrum arboreum (Linn.) de C. **Sourwood.**

RANGE.—From Pennsylvania (Mount Pleasant, in Westmoreland County, and along the Allegheny Mountains) to western Florida and southern Alabama (eastern shores Mobile Bay), westward to southern Indiana, Arkansas (mountains) and western Louisiana.

NAMES IN USE.—Sourwood (W. Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Ky., Ohio); Sorrel-tree (Pa., N. C., S. C., Miss., La., Ohio); Sour Gum Bush (Ohio); Sour Gum (W. Va.); Arrow-wood (W. Va.); Titi (S. C.); Lily of the Valley-tree.

KALMIA Linn.

Kalmia latifolia Linn. **Mountain Laurel.**

RANGE.—From New Brunswick to Lake Erie (northern shores and mainly along the Appalachian Mountains) to western Florida; west through the Gulf States to western Louisiana and Arkansas (Red River).

NAMES IN USE.—Laurel (N. H., Vt., Mass., R. I., Conn., N. J., N. Y., Pa., Del., Va., W. Va., N. C., S. C., Miss., La., Mo.); Calico Bush (Vt., R. I., N. Y., Pa., Del., N. C., S. C., Ala., Miss., La.); Spoonwood (N. H., Mass., R. I., Pa., Miss.); Ivy (Conn., Md., Va., N. C., S. C., Miss.); Poison Ivy (Tenn., Ala.); Poison Laurel (Ala.); Mountain Laurel (Vt., Mass., W. Va., Ky., Tenn.); Sheep Laurel (Pa.); Wood Laurel (Pa.); Small Laurel (W. Va.); Kalmia (Pa., S. C.); Calico-tree (Tenn.); Calico Flower (Tenn.); Mountain Ivy (Va.); Big-leaved Ivy (lit. domestic medicine); Ivywood (S. C.).

RHODODENDRON Linn.

Rhododendron maximum Linn. **Great Rhododendron.**

RANGE.—From Nova Scotia to Lake Erie (north shores) and southward in New England and New York (and along the Allegheny Mountains) to northern Georgia.

NAMES IN USE.—Great Laurel (N. H., Mass., R. I., N. Y., N. J., Pa., N. C., Minn.); Rose Bay (R. I., Pa., N. C., S. C.); Bigleaf Laurel (Pa.); Big Laurel (W. Va.); Laurel (R. I., Va., N. C., S. C.); Mountain Laurel (Pa., S. C.); Rhododendron (R. I., N. Y., Pa., Va., S. C.); Dwarf Rose Bay-tree (Tenn.); Spoon Hutch (N. H.); Wild Rose Bay and Deer-tongue Laurel (lit. of domestic medicine).

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VARIETIES DISTINGUISHED IN CULTIVATION.

Rhododendron maximum roseum Pursh.
Rhododendron maximum purpureum Pursh.
Rhododendron maximum album Pursh.

Rhododendron catawbiense Michx. **Catawba Rhododendron.**

RANGE.—Mountains from Virginia and West Virginia to Georgia and Alabama (Lookout Mountain, on Little Liver in Dekalb County).

Family MYRSINACEÆ.

ICACOREA Aublet.

Icacorea paniculata (Nutt.) Sudworth. **Marlberry.**

ARDISIA PICKERINGIA Nutt.

RANGE.—Coast of southern Florida (on the east coast from Mosquito Inlet to southern islands and on the west coast from Caloosa River to Cape Romano); Bahamas, Cuba, and southern Mexico.

NAMES IN USE.—Marlberry (Fla.); Cherry (Fla.).

JAQUINIA Linn.

Jaquinia armillaris Jacq. **Joewood.**

RANGE.—Off the coast of southern Florida (Sanibel Islands to southern keys and Everglades); Mexico, Central America, Venezuela, and northern Brazil.

NAME IN USE.—Joewood (Fla.).

Family SAPOTACEÆ.

CHRYSOPHYLLUM Linn.

Chrysophyllum monopyrenum Swartz. **Satinleaf.**

CHRYSOPHYLLUM OLIVIFORME Lam.

RANGE.—Coast of southern Florida (on the east coast from Mosquito Inlet to southern keys and on the west coast from Caloosa River to Cape Sable); Bahamas and West Indies.

NAME IN USE.—Satinleaf (Fla.).

SIDEROXYLON Linn.

Sideroxylon mastichodendron Jacq. **Mastic.**

RANGE.—Coast of southern Florida (on the east coast from Cape Canaveral to southern keys and on the west coast from Cape Romano to Cape Sable); Bahamas and West Indies.

NAME IN USE.—Mastic (Fla.); Wild Olive (Fla.).

BUMELIA Swartz.

Bumelia tenax (Linn.) Willd. **Tough Bumelia.**

RANGE.—Coast region North Carolina to Florida (Cape Canaveral and Cedar Keys).

NAMES IN USE.—Black Haw (Fla.); Tough Buckthorn (S. C.); Ironwood (S. C., Fla.).

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Bumelia lanuginosa (Michx.) Pers. **Shittimwood.**

RANGE.--From southern Georgia and northern Florida through Alabama (Tennessee River Valley to coast plain); from southern Illinois and southern Missouri through Arkansas and Texas to Mexico (Nuevo Leon).

NAMES IN USE.—Gum Elastic; Shittimwood (Tex.); Black Haw (Fla.).

Bumelia lanuginosa rigida Gray.

RANGE.—Western Texas to Arizona and south into Mexico (Nuevo Leon).

Bumelia lycioides (Linn.) Gærtn. f. **Buckthorn Bumelia.**

RANGE.—From southern Virginia to Florida (Mosquito Inlet and Caloosa River) and west to southern Illinois, southern Missouri, Arkansas, and Texas (Rio Concho River).

NAMES IN USE.—Ironwood (Va., S. C., Ga., Fla., Miss., Ky.); Southern Buckthorn (Miss., La., Tex., Ill.); Carolina Buckthorn (N. C.); Buckthorn (S. C.); Chittimwood (Tex.); Mock Orange (Fla.).

Bumelia angustifola Nutt. **Saffron Plum.**

RANGE.—Florida coast region (on the east from Indian River to southern keys, and on the west coast from Cedar Keys to Cape Romano); Texas (Rio Grande River below Laredo); Mexico (Nuevo Leon); West Indies.

NAMES IN USE.—Saffron Plum (Fla.); Downward Plum (Fla.); Antswood (Fla.).

DIPHOLIS A. de C.

Dipholis salicifolia (Linn.) A. de C. **Bustic.**

RANGE.—Coast of southern Florida (Biscayne Bay and a number of southern keys); Bahamas and West Indies.

NAMES IN USE.—Bustic (Fla.); Cassada (Fla.).

MIMUSOPS Linn.

Mimusops sieberi A. de C. **Wild Sapodilla.**

RANGE.—Off the coast of southern Florida (southern keys); Bahamas and West Indies (?).

NAMES IN USE.—Wild Dilly (Fla.); Wild Sapodilla (Fla.).

Family EBENACEÆ.

DIOSPYROS Linn.

Diospyros virginiana Linn. **Persimmon.**

RANGE.—Connecticut (Light-house Point, New Haven); New York (Long Island); from southern New York (east of Allegheny Mountains) to Florida (Biscayne Bay and Caloosa River); from southern Ohio to southern Alabama and west to southwestern Iowa, southern Missouri, and eastern Kansas (Franklin, Anderson, Bourbon, Crawford, and Cherokee counties), Indian Territory and Texas (Colorado River).

NAMES IN USE.—Persimmon (Conn., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ga., Fla., Miss., La., Ky., Mo., Tex., Ark., Ill., Ind., Iowa, Ohio); Date Plum (N. J., Tenn.); Plaqueminier (La.); Simmon (Fla.); Possumwood (Fla.).

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Diospyros texana Scheele. **Mexican Persimmon.**

RANGE.—Texas (Colorado and Rio Concho rivers) to Mexico (Nuevo Leon).

NAMES IN USE.—Mexican Persimmon (Tex.); Black Persimmon (Tex.); Chapote (Tex.).

Family SYMPLOCACEÆ.

SYMPLOCOS Jacq.

Symplocos tinctoria (Linn.) L'Hér. **Sweetleaf.**

RANGE.—From southern Delaware (peninsula) to Florida; west in the Atlantic region to the Blue Ridge Mountains, and through the Gulf States (in Alabama up to Tennessee River) to western Louisiana and southern Arkansas (border counties).

NAMES IN USE.—Sweetleaf (Del., N. C., S. C., Fla., Ala.); Yellow-wood (N. C., S. C., Ala.); Horse Sugar (Del., Ala., La.); Florida Laurel (Fla.).

Family STYRACACEÆ.

MOHRODENDRON Britton.

Mohrodendron carolinum (Linn.) Britton. **Silverbell-tree.**

HALESIA TETRAPTERA Ellis.

RANGE.—From West Virginia (mountains) to southern Illinois and south to middle Florida, northern Alabama (Lauderdale, Cullman, and Talladega counties), and Mississippi through Arkansas and western Louisiana to eastern Texas.

NAMES IN USE.—Snowdrop-tree (R. I., Pa. (cult.), N. C., S. C., Fla., La.); Silverbell-tree (R. I. (cult.), Ala., Fla., Miss.); Silverbell (Pa., cult.); Wild Olive-tree (Tenn.); Bell-tree (Tenn.); Four-winged Halesia (Ala.); Opossum-wood (Ala.); Rattlebox (Tex.); Calicowood (Tex., Ill.); Tisswood (Tenn.).

Mohrodendron carolinum meehani (Sarg.) nom. nov. **Meehan Silverbell-tree.**

RANGE.—Originated in the nursery of Thomas Meehan & Sons, Germantown, Pa., and so far known only in cultivation.

Mohrodendron dipterum (Ellis) Britton. **Snowdrop-tree.**

HALESIA DIPTERA Ellis.

RANGE.—Coast region from South Carolina to northern Florida, and through the Gulf States (mainly in coast plain of Alabama) to Texas; northward through Louisiana to central Arkansas.

NAMES IN USE.—Snowdrop-tree (R. I., Del. (cult.), S. C., Ala., La., Tex.); Silverbell-tree (R. I., Del. (cult.), Miss., Tex.); Cow Licks (La.).

Family OLEACEÆ.

FRAXINUS Linn.

Fraxinus cuspidata Torr. **Fringe Ash.**

RANGE.—From southwestern Texas (canyon of Rio Grande River) through southern New Mexico to Arizona (Grand Canyon of Colorado River), and southward into Mexico (mountains of Cohahuila and Nuevo Leon to Santa Eulalia Mountains in Chihuahua).

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Fraxinus greggii Gray. **Gregg Ash.**

RANGE.—Western Texas (from mouth of San Pedro River to Pecos River) and southward into Mexico (mountains of Nuevo Leon, Cohahuila, and Chihuahua).

Fraxinus quadrangulata Michx. **Blue Ash.**

RANGE.—From Michigan, Illinois, and Iowa southward (ranging into southeastern Kansas in Sumner and Cherokee counties) to northern Alabama (Jackson and Madison counties) and to northeastern Arkansas. Range insufficiently known.

NAME IN USE.—Blue Ash (Pa. (cult.), Ala., Ky., Mo., Ill., Mich.).

Fraxinus nigra Marsh. **Black Ash.**

FRAXINUS SAMBUCIFOLIA Lam.

RANGE.—From northern shores of Gulf of St. Lawrence and Newfoundland to Manitoba (Lake Winnipeg) and southward to Delaware (Newcastle County), Virginia (mountains), southern Illinois, central Missouri, and northwestern Arkansas.

NAMES IN USE.—Black Ash (Me., N. H., Vt., Mass., R. I., N. Y., N. J., Pa., Del., W. Va., Mo., Ohio, Ont., Mich., Ill., Minn.); Hoop Ash (Vt., N. Y., Del., Ohio, Ill., Ind.); Basket Ash (Mass.); Brown Ash (N. H., Tenn.); Swamp Ash (Vt., R. I., N. Y.); Water Ash (W. Va., Tenn., Ind.).

Fraxinus anomala Wats. **Dwarf Ash.**

RANGE.—From southwestern Colorado (McElmo River) through southern Utah; southern Nevada (Charleston Mountains).

NAMES IN USE.—Ash (Utah); Dwarf Ash (Ariz., Utah).

Fraxinus anomala triphylla Jones. **Trifoliate Dwarf Ash.**

RANGE.—Arizona (type locality "Pagumpa in the Grand Wash, 4,000 feet altitude").

Fraxinus velutina Torr. **Leatherleaf Ash.**

FRAXINUS PISTACIÆFOLIA Torr.

RANGE.—From western Texas (mountains) through southern New Mexico and Arizona to southern Nevada and southeastern California (Panamint Mountains and Owens Lake).

NAME IN USE.—Ash (Tex., Ariz., Nev.).

Fraxinus americana Linn. **White Ash.**

RANGE.—From Nova Scotia and Newfoundland to Florida and westward to Ontario and northern Minnesota, eastern Nebraska, Kansas, Indian Territory, and Texas (Trinity River).

NAMES IN USE.—White Ash (Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Del., Pa., Va., W. Va., N. C., S. C., Ga., Fla., Ala., Miss., La., Tex., Ky., Mo., Ill., Ind., Iowa, Kans., Nebr., Mich., Ohio, Ont., Minn., N. Dak., Wis.); Ash (Ark., Iowa, Wis., Ill., Mo., Minn.); American Ash (Iowa); Franc-Frene (Quebec); Cane Ash (Ala., Miss., La.).

Fraxinus americana curtissii (Vasey) Sudworth. **Small-fruit White Ash.**

FRAXINUS AMERICANA var. MICROCARPA Gray.

RANGE.—Northern Alabama (Morgan and Madison counties) to middle Tennessee.

Fraxinus texensis (Gray) Sargent. **Texas Ash.**

FRAXINUS AMERICANA var. TEXENSIS Gray.

RANGE.—Northern, central, and western Texas (from near Dallas to valley of Devils River).

NAME IN USE.—Mountain Ash (Tex.).

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Fraxinus pennsylvanica Marsh. **Red Ash.**

FRAXINUS PUBESCENS Lam.

RANGE.—From New Brunswick to northern Florida and westward to southern Ontario, Dakota (Black Hills), eastern Nebraska, northeastern and eastern (border counties) Kansas, to west Tennessee and through northern Alabama (mountain region in St. Clair and Cullman counties).

NAMES IN USE.—Red Ash (Me., N. H., Vt., Mass., R. I., N. Y., N. J., Pa., Del., W. Va., N. C., S. C., Fla., Ga., Ala., Miss., La., Ky., Mo., Ill., Kans., Nebr., Mich., Minn., Ont.); Brown Ash (Me.); Black Ash (N. J.); River Ash (R. I., Ont.); Bastard Ash (Vt.); Ash (Nebr.); Piss Ash (Vt.).

Fraxinus profunda Bush. **Pumpkin Ash.**

RANGE.—Western Florida and southern Missouri (New Madrid County); Arkansas (near Varner). Range insufficiently known.

NAME IN USE.—Pumpkin Ash (Ark.).

Fraxinus lanceolata Borkh. **Green Ash.**

FRAXINUS VIRIDIS Michx. f.

RANGE.—From Vermont (Lake Champlain and southward in the Appalachian region) to northern Florida; westward to the Saskatchewan River, eastern ranges of the Rocky Mountains and extending into Utah (Wasatch Mountains) and eastern and northern Arizona (mountains), and through eastern Texas (to Colorado River).

NAMES IN USE.—Green Ash (Mass., R. I., Conn., N. Y., N. J., Pa., Del., N. C., S. C., Ala., Miss., La., Tex., Mo., Ill., Kans., Nebr., Mich., Minn., S. Dak., Ohio, Ont., Iowa); Blue Ash (Ark., Iowa); White Ash (Kans., Nebr.); Swamp Ash (Fla., Ala., Tex.); Ash (Ark., Iowa, Nebr.); Water Ash (Iowa).

Fraxinus berlandieriana A. de C. **Berlandier Ash.**

RANGE.—Western Texas (banks of Nueces and Rio Blanco rivers and other streams), but probably established in northeastern Mexico and in the United States only through the agency of man; indigenous in southern Mexico (mountains of Michoacan).

Fraxinus caroliniana Mill. **Water Ash.**

FRAXINUS PLATYCARPA Michx.

RANGE.—Coast region from southern Virginia to Florida (Cape Canaveral and Caloosa River) and in the Gulf region (in Alabama up to Tuscaloosa, Baldwin, Clark, and Mobile counties) to Texas (Sabine River); northward through western Louisiana to southwestern Arkansas.

NAMES IN USE.—Water Ash (N. C., S. C., Fla., Ala., Miss., La., Tex.); Carolina Ash (Pa., cult.); Poppy Ash (Ala.); Pop Ash (Fla.).

Fraxinus oregona Nutt. **Oregon Ash.**

RANGE.—From Puget Sound (shores) southward through Washington, Oregon and California (coast region to San Francisco Bay; on foothills of Sierra Nevada Mountains to mountains of San Bernardino and San Diego counties).

NAME IN USE.—Oregon Ash (Cal., Wash., Oreg.).

CHIONANTHUS Linn.

Chionanthus virginica Linn. **Fringetree.**

RANGE.—From Pennsylvania (Lancaster and Chester counties), Delaware, West Virginia (Jackson and Summers counties), and Kentucky (Warren County) to Florida (Tampa Bay); west through the Gulf States to Texas (Brazos River) and southern Arkansas; eastern Kansas (Allen County).

NAMES IN USE.—Fringetree (R. I. (cult.), N. Y. (cult.), N. J., Pa., Del., D. C., N. C., S. C., Fla., Miss., La., Tex., Mo.); White Fringe

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(Mass., R. I., Pa.); American Fringe (W. Va.); White Ash (W. Va.); Old Man's Beard (N. C., S. C., Ala., Fla.. Miss., La.); Flowering Ash (S. C.); Sunflower-tree (Tenn.).

OSMANTHUS Laureiro.

Osmanthus americanus (Linn.) Benth. & Hook. **Devilwood.**

RANGE.—Coast region from North Carolina (Cape Fear River) to Florida (Kissimmee River and Tampa Bay) and west to eastern Louisiana; Arkansas (?).

NAMES IN USE.—Devilwood (Ala., Fla.); Wild Olive (Fla.).

Family BORRAGINACEÆ.

CORDIA Linn.

Cordia sebestena Linn. **Geigertree.**

RANGE.—Southern Florida islands (Key West and other southern islands); Bahamas, West Indies, Guiana, New Granada.

NAME IN USE.—Geigertree (Fla.).

Cordia boissieri A. de C. **Anacahuita.**

RANGE.—From Texas (Rio Grande River) and southern New Mexico into northern Mexico.

BOURRERIA Browne.

Bourreria havanensis (Roem. & Sch.) Miers. **Strongback.**

RANGE.—Florida keys (Key West, Key Largo, Upper Metacombe, and Elliotts Key); Bahamas and several of the West Indies.

NAMES IN USE.—Strongbark (Fla.); Strongback (Bahama Islands).

Bourreria havanensis radula (Poir.) Gray.
Bristle-leaf Strongback.

EHRETIA Browne.

Ehretia elliptica de C. **Anaqua.**

RANGE.—Western Texas (from upper San Marcos River to the Rio Grande River); Mexico (Nuevo Leon and Coahuila to mountains of San Luis Potosi).

NAMES IN USE.—Knackaway (Tex.); Anaqua (Tex.).

Family VERBENACEÆ.

CITHAREXYLUM Linn.

Citharexylum villosum Jacq. **Fiddlewood.**

RANGE.—Southern Florida (from Cape Canaveral to the southern keys).

NAME IN USE.—Fiddlewood (Fla.).

AVICENNIA Linn.

Avicennia nitida Jacq. **Blackwood.**

RANGE.—Florida coast (from St. Augustine to the southern keys on the east coast and on the west coast from Cedar Keys to Cape Sable); Louisiana (Mississippi River delta); several of the West Indies and Brazil.

NAMES IN USE.—Blackwood (Fla.); Blacktree (Fla.); Black Mangrove (Fla.).

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Family SCROPHULARIACEÆ.

PAULOWNIA Sieb. & Zucc.

Paulownia tomentosa (Thunb.) Steudel. **Paulownia.**

RANGE.—Japan. Cultivated in the Middle Atlantic and Southern States and running wild in many localities (near Wilmington, Del.; Washington, D. C.; Mobile, Ala., etc.).

Family BIGNONIACEÆ.

CATALPA Scop.

Catalpa catalpa (Linn.) Karst. **(Common) Catalpa.**

CATALPA BIGNONIOIDES Walt.

RANGE.—Supposed to be indigenous only in southwestern Georgia, western Florida, central Alabama and Mississippi, but widely cultivated and naturalized elsewhere east of the Rocky Mountains.

NAMES IN USE.—Catalpa (Mass., R. I., Conn., N. Y., N. J., Pa., Del., W. Va., N. C., S. C., Ala., Ga., Fla., Miss., La., Ark., Ky., Mo., Ill., Kans., Nebr., Iowa, Mich., Wis., Ohio, Minn.); Indian Bean (Mass., R. I., N. Y., N. J., Pa., N. C., Ill.); Beantree (N. J., Del., Pa., Va., La., Nebr.); Catawba (W. Va., Ala., Fla., Kans.); Cigartree (R. I., N J., Pa., W. Va., Mo., Ill., Wis., Iowa); Catawba-tree (Del.); Indian Cigar tree (Pa.); Smoking Bean (R. I.).

Catalpa speciosa Warder. **Hardy Catalpa.**

RANGE.—Through southern Illinois (from the Vermilion River) and Indiana, western Kentucky and Tennessee, southeastern Missouri and northeastern Arkansas; elsewhere naturalized through cultivation, especially in southern Arkansas, western Louisiana, and eastern Texas.

NAMES IN USE.—Hardy Catalpa (Ill., Iowa, Kans., Mich., cult.); Western Catalpa (Pa. (cult.) Ohio, Kans., Nebr. (cult.) Ill.); Catalpa (R. I., N. Y. (cult.) La., Ill., Ind., Mo., Wis., Iowa, Nebr., Minn., cult.); Cigartree (Mo., Iowa, cult.); Bois Puant (La.); Indian Bean (Ind.); Shawneewood (Ind.).

CHILOPSIS Don.

Chilopsis linearis (Cav.) Sweet. **Desert Willow.**

RANGE.—Through southwestern (from near Laredo) and western Texas, southern New Mexico, Arizona, southern Utah and Nevada, and southern California (San Diego County); northern Mexico.

NAMES IN USE.—Desert Willow (Cal., Tex., N. Mex., Ariz., Utah, Nev.); Texas Flowering Willow (Tex.); Flowering Willow (Tex.).

CRESCENTIA Linn.

Crescentia ovata Burm. **Black Calabash.**

CRESCENTIA CUCURBITINA Linn.

RANGE.—Coast of southern Florida (Biscayne Bay, east of mouth of Miami River; also on Little River); West Indies; southern Mexico; Pacific coast of Panama; Venezuela

NAMES IN USE.—Black Calabash-tree (Fla.); Black Calabash (Fla.).

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Family RUBIACEÆ.

EXOSTEMA Richard.

Exostema caribæum (Jacq.) Roem. & Schult. **Princewood.**

RANGE.—Southern Florida keys (abundant on Key West and Upper Metacombe Key); West Indies; southern Mexico and west coast of Nicaragua.

NAME IN USE.—Princewood (Fla.).

PINCKNEYA Michx.

Pinckneya pubens Michx. **Fevertree.**

RANGE.—Coast region from South Carolina to Georgia and Florida (upper Apalachicola River and tributaries in Florida and Georgia). Very rare.

NAMES IN USE.—Georgia Bark (S. C., Fla.); Fevertree (Ala.); Florida Quinine Bark (Fla.).

GUETTARDA Vent.

Guettarda elliptica Swartz. **Guettarda.**

RANGE.—Southern Florida keys (near coast); Bahamas; Jamaica (coast).

NAME IN USE.—Nakedwood (Fla.).

Family CAPRIFOLIACEÆ.

SAMBUCUS Linn.

Sambucus mexicana Presl. **Mexican Elder.**

RANGE.—From western Texas (Nueces River) through southern New Mexico and Arizona to southern California; also in northern California (Plumas County); southward through Mexico to Central America.

NAMES IN USE.—Elder (N. Mex., Tex.); Elderberry-tree.

Sambucus callicarpa Greene. **Redberry Elder.**

RANGE.—California (coast ranges).

Sambucus glauca Nutt. **Pale Elder.**

RANGE.—From southern British Columbia (Fraser River) and Vancouver Island to the southern borders of California and eastward to the Blue Mountains in Oregon and the Wasatch Mountains in Utah.

NAMES IN USE.—Elder (Cal., Utah, Oreg.); Elderberry (Cal.); Black Elderberry (Utah); Mountain Elder.

VIBURNUM Linn.

Viburnum lentago Linn. **Sheepberry.**

RANGE.—From Quebec (Rivière du Loup) to the Saskatchewan River and southward through the Northern States (and along the Allegheny Mountains) to northern Georgia and in western range south to southern Indiana, southwestern Missouri, and eastern Nebraska.

NAMES IN USE.—Sheepberry (Vt., N. H., Mass., R. I., Conn., N. Y., N. J., Pa., Del., S. C., Ky., Ill., Iowa, Mich., Nebr., Minn., N. Dak., Ohio);

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Nannyberry (Vt., N. Y., Mich., Ohio, Ont., Iowa, Minn., N. Dak.); Nanny Plum (Vt.); Black Haw (Ill., Mo., Minn., N. Dak.); Wild Raisin (Me.); Sweetberry (Minn.); Sweet Viburnum (R. I., Tenn.. Nebr.); Viburnum (R. I.).

Viburnum prunifolium Linn. **Nannyberry.**

RANGE.—From Connecticut (Fairfield County and Lower Hudson River) to northern Georgia; westward through southern Michigan to eastern Kansas (border counties); Indian Territory. The southern range of this species, to which some authors unite the following species, is insufficiently known.

NAMES IN USE.—Black Haw (R. I., N. Y., N. J., Pa., Del., Va., W. Va., N. C., S. C., Ala., Ga., Fla., Miss., La., Tex., Ky., Mo., Kans., Ill., Ind., Ohio); Sloe (Tenn.); Sheepberry (N. J.); Nannyberry (N. J.); Alisier (La.); Stagbush; Haw (Md., Va.); Sweet Haw.

Viburnum rufotomentosum Small. **Rusty Nannyberry.**

VIBURNUM PRUNIFOLIUM *β* FERRUGINEUM Torrey & Gray.

RANGE.—Southern Virginia to Georgia and west to western Texas. Range insufficiently known.

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